Lectures
ON
THE SURGICAL TREATMENT OF ANEURISM
IN ITS VARIOUS FORMS.

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LECTURE I.—PART II.

LET us pass on now to Brasdor's operation. The name, as is well known, was derived from a Parisian surgeon, of whom there is a tradition that he used in his lectures to speak of the feasibility of tying an artery as it leaves the sac of the aneurism; but he never performed the operation, nor did Desault, who gives us the proposal in writing.* This proposal of Brasdor and Desault was merely that, in cases of axillary and inguinal aneurism, where, as Desault thought, the artery above the sac is inaccessible, it might be exposed and tied as it leaves the sac. This operation was attempted by Deschamps, but very unsuccessfully, in a case where the common femoral was obliterated below the sac, and where, consequently, the surgeon had much trouble in recognising it. It seems, however, that he did succeed in embracing it, with some neighbouring structures, in a ligature. Brasdor is said to have witnessed this operation. It was judged necessary soon after to perform the old operation, with fatal results. The French surgeons, however, did not, as far as I know, point out the circumstances in which Brasdor's method may be confidently expected to succeed—namely, when no artery except the trunk which has been secured opens out of the tumour. This was clearly explained by Mr. Hodgson.† But Mr. Wardrop was the first to show by actual practice the success with which the operation may be performed in the only kind of aneurism which fulfils this condition—namely, carotid aneurism;‡ and it was he also who suggested the possibility, even in other aneurisms, such as those of the innominate artery, of sufficiently checking the circulation by tying the carotid and third part of the subclavian to effect a cure, in spite of the presence of the four great branches from the first part intervening between the ligature and the heart.

How entirely the proposal of Brasdor had passed out of sight since the failure of the two or three cases operated on by his method, and detailed by Mr. Guthrie in his lectures at this College, may be judged by the testimony of Boyer. In Boyer's "Taité des Maladies Chir.," ii., 236, ann. 1845, edited by his son, le Baron Ph. Boyer, Brasdor's operation is thus spoken of:—"This operation was proposed verbally by Brasdor, professor at the old College of Surgery. Desault, in his lectures on pathology and operations, used to discuss the question whether it did not offer some chance of success in aneurisms inaccessible to the ordinary method; but this celebrated surgeon never put the matter to the test of experience when the opportunity offered." After the description of Deschamps' operation, at which Brasdor was himself present, and which was exactly that proposed by Desault, the editor adds a note in which he says that both Brasdor's proposal and the notion of distal compression were almost forgotten till Wardrop revived the distal operation; and he proceeds as follows:—"In spite of the success which has been obtained in about a quarter of the number of cases operated on, and in spite of the important difference established by Mr. Wardrop between those cases in which no collaterals exist between the ligature and the tumour and those in which they do, we are obliged to confess that this operation offers such great chances of failure that it ought not to be used in any cases in which other treatment is possible."

It is clear that the operation described by Desault is a very uncertain and dangerous one; it has most of the risks of the old method of Antyllus without its completeness and certainty, and in the present condition of operative surgery it has no precise application unless it be to innominate aneurism. Rossi's or Hobart's operation of tying the first part of the subclavian and the common carotid in an aneurism assumed to be purely innominate is strictly an application of the proposal of Desault or Brasdor; but neither of these surgeons thought of tying a healthy artery in healthy parts at a distance from the tumour, as Wardrop did in carotid aneurisma; still less had they imagined the novel and ingenious theory by which that surgeon endeavours to convince us that coagulation may be brought about in an innominate aneurism by tying the healthy carotid and the subclavian in its third part.

In order to form an opinion as to the merits of Wardrop's suggestion in cases of intrathoracic aneurism, I propose in the first place to discuss the theory of the matter, and next to see what support the method derives from pathological facts and from the experience of the cases in which it has been tried.

First with regard to the mechanical theory. Mr. Wardrop insists with indubitable force on the fact (too generally overlooked at his time, and I fear hardly sufficiently realised even now) that the ligature of an artery opposes only a temporary check to the circulation, and that the collateral circulation is re-established in so very short a time that there is no such lengthened period of total repose for the blood in an aneurismal tumour after the Hunterian operation as some have imagined. That this is so in animals can easily be proved by direct experiment. Thus Broca, in his work on Aneurism, p. 507, relates that a ligature was placed under the femoral artery of a dog in the groin, the leg was amputated at the knee, and the distance to which the pulsating jet from the divided artery extended during both the systole and diastole of the heart was carefully noted. The ligature under the femoral was now tied, by which of course the jet from the popliteal artery was stopped for the time; but the artery recommenced to bleed at the end of one minute, and at the end of five minutes the jet (which, however, no longer pulsated) had attained a quarter of its former maximum distance, in spite of the diminution of the mass of blood in the body. Porta,* again, relates an experiment on a dog, showing that after ligature of the abdominal aorta the collateral circulation was re-established to such an extent that fluid injected into the aorta passed into both femorals, and that the commencement of this process was perceptible almost immediately after the operation. Wardrop himself has related a striking proof of the rapidity with which the circulation in man is replaced after the ligature of a large vessel. "The enlargement of these [the anastomosing vessels] to a certain extent takes place almost immediately after the trunk has been tied. I observed this in a child in whom I had secured the carotid artery. I could see the branches of the temporal and occipital underneath the delicate integument enlarging, and thus actively acquiring great additional vigour, immediately after the operation." Nor is this by any means a solitary observation. In the case of temporary deligation of the abdominal aorta under the care of Mr. W. Stokes,† in which that artery was compressed by an instrument so firmly that on post-mortem examination no fluid could be made to pass down it, the pulse was nevertheless perceptible in the left femoral artery nine hours after the application of the instrument, though the man was dying. In Earle's case‡ of ligature of the subclavian artery the pulse was perceived at the wrist two and a half hours after the operation. In Mott's case§ of ligature of the subclavian the pulse was perceived at the wrist on the evening of the operation. In Mr. Heath's case of double ligature‖ the pulse returned in the temporal artery on the evening of the ligature of the carotid, and in the brachial two days after the subclavian had been tied. In Sir A. Cooper's second case of ligature of the common

* Œuvr. Chir., ii., 368. Desault was restrained from operating, on the only fit case which he ever met with (one of axillary aneurism), by the fear that the sac, which seemed to be a thin one, would burst under the increased pressure which he thought would follow the operation.

† Hodgson on Diseases of Arteries and Veins, pp. 291-2. 1815.

‡ Wardrop (p. 80) spoke thus:—"When I first applied a ligature on the distal side of an aneurism, I considered that I had established an important principle in the treatment of those aneurisms in which no ligature could be placed on the cardiac side of the tumour, and at the same time no branch intervenes between that ligature and the heart."

* Alt. Pat. delle Art., p. 347.

† Dublin Quarterly Journal, Aug. 1869.

‡ London Med. Gaz., vol vi., p. 241.

§ Amer. Journ. of Med. Sciences, vol. vii. 1830, p. 309.

‖ Heath: On the Treatment of Intrathoracic Aneurism by the Distal Ligature, p. 11.

carotid,* after the vessel had been tied with two ligatures and cut across, "the pulsation in the tumour had not entirely ceased, although it was so much diminished as to become obscure. I concluded it to be the effect of the return of blood by the internal carotid artery from the brain, in consequence of the free anastomosis which exists between the bloodvessels within the skull."

These facts are sufficient to prove that in man, as well as in animals, the collateral circulation commences very shortly (indeed, we might almost say immediately) after the ligature of the artery, and that in some cases it has attained so great a development in a very short time that the pulse has been felt at a great distance from the seat of ligature on the day of operation.

The effect of this diversion of the stream of blood is shown in some cases of Brasdor's operation by the remarkable fact that the aneurismal tumour becomes visibly smaller and more flaccid, instead of becoming more tense. Now the tension of the tumour would certainly increase immediately after the operation, if no fresh side sluices were opened near the dam which has been thrown across the stream of blood beyond it. This fact was first pointed out by Wardrop, who noticed it with surprise, and it has since been repeatedly verified. Its non-occurrence in a case of supposed innominate or carotid aneurism appears to me to be a fact of evil augury for the curative effect of the distal operation.

Thus we see that the problem is not merely a mechanical one, but that the effect of the collateral circulation, and the probable rapidity of its development, must be taken into consideration, and, in fact, are the most important features in the question.

Now Wardrop, in his original treatise on the subject, pointed out the difference that exists between cases where no branch intervenes between the ligature and the sac, and cases where there are such branches; and Hodgson, as we have seen, had previously noticed the same point.

We may take a purely carotid aneurism as an example of the former, and an innominate aneurism treated by distal ligature of the carotid and of the third part of the subclavian simultaneously, of the latter. In the case of the carotid the ligature, the artery below it, and the sac, are equally withdrawn from the pressure of the circulation by the enlargement of the collaterals, and the consequent derivation of the stream of blood (which used to pass through the tied carotid) into the subclavian of the same side and the opposite carotid. Theoretical reasoning, therefore, seems to show that in such a case the aneurismal sac is placed in the same condition as the portion of artery intervening between the ligature and the nearest collateral below it, and has therefore the same prospect of being occluded. That this prospect does not amount to a certainty we have plenty of evidence. See, for instance, such a preparation as this, from the museum of St. George's Hospital (a. vi., 147; also 1584 A, museum of the College of Surgeons). It is a fact that even when the vessel has been ligatured in the ordinary way with a silk thread, and therefore divided by ulceration, the portion obliterated is sometimes merely that which has been tied, and in such a case the aneurism may remain unconsolidated. But when, as in Astley Cooper's original case (see the plates 1 and 2, fig. 1 in Med. Chir. Transactions, vol. i.; also No. 1585 in the museum of the College), the clot extends down the whole length of the vessel below the ligature into the innominate artery, no reason that I can see exists why the same thing should not occur, supposing a portion of the carotid artery to be aneurismal; in fact, judging from the known tendency to coagulation in aneurismal tumours, the reason would seem to be all the other way.

There can then, I think, be no doubt that in aneurism limited to the root of the carotid artery Brasdor's operation will, in all reasonable probability, effect a radical cure; and in speaking of carotid aneurism on a future occasion I shall hope to adduce practical proof that the operation has been successful.

Matters are quite on a different footing, however, when there are collaterals of large size between the ligature and the tumour, as in the double distal ligature of the carotid and third part of the subclavian. These branches must increase at once, in order to carry on the collateral circulation. The size which some of them ultimately attain is shown in Mr. Heath's specimen in the museum of the College (No. 1596 A); and I see no reason to doubt that this size is reached very early. The reasoning, therefore, on which Mr. Wardrop based his proposal seems to me faulty, notwithstanding that it has been endorsed by the high authority of Mr. Erichsen, and adopted by many reasoners on this matter. Wardrop assumes that the carotid artery, the sum of the four branches from the first part of the subclavian, and the continuation or third part of this artery, may each be assumed to be equal in area; and that therefore, by tying the first and last, the tumour will be relieved of two-thirds of its volume of blood, and this, he thinks, will probably suffice for coagulation. It is surprising that his own most correct and ingenious observations on the rapid enlargement of the collaterals did not show him how very transitory this relief would be. In fact, the amount of blood circulating through the innominate artery, or through the aneurism, must be the same as before, with the exception of so much of it as is carried by the collaterals derived from the left carotid and the upper intercostal branches of the aorta. What the amount of this latter may be it would be very difficult to estimate; but it must be greatly under two-thirds, or even one-third. And I think we are justified in arguing that, after ligature of the carotid and third part of the subclavian, a more active stream than before must pass through the first part of the latter artery to supply blood to the thyroid axis and the other branches which have now to enlarge in order to take up much of the supply to the arm, neck, and brain; so that the complete consolidation of the innominate aneurism is impossible, under these circumstances, if the tumour be (as it usually is) a tubular enlargement of the artery itself. Mr. Fearn's case, however, appears to show that, even in such an aneurism, enough clot may be deposited to allow of a practical cure, the circulation going on through the centre of the clot.

Turning to the results of practice, they are twofold—viz., the inspection of morbid specimens, where the arteries have become obliterated beyond the aneurismal tumour, and the histories of cases in which the operation has been performed, especially with regard to post-mortem examinations.

The obliteration of one or the other of the two main branches coming off from an innominate aneurism is a very common post-mortem phenomenon, and I think there are sufficient specimens at hand to show that it is usually accompanied by obliteration of the portion of the tumour which is in connexion with the obliterated vessel. I will use as an illustration this drawing from the case of innominate aneurism which underwent spontaneous cure at St. George's Hospital (a.vi., 133 in St. George's Hospital museum). It will be seen that the carotid artery is entirely obliterated, and is converted into a solid cord from the sac to its bifurcation. There can be no doubt from the symptoms that this was the result of impaction of clot. The patient from whom this preparation was taken, George C——, a sailor, died on Aug. 24th, 1853, at the age of forty-four, from phthisis. The history of the case is given at length by Dr. J. W. Ogle in the Pathological Society's Transactions, vol. ix., p. 167. The aneurism could be traced back as far as to the year 1846, when he was first in St. George's Hospital under Dr. Bence Jones's care; but he had been suffering for some time previously from pain, which was considered to be rheumatic, and which was attributed to exposure to cold while steering a vessel in a storm. During his first stay in St. George's Hospital in the years 1846–7, no particular change seems to have occurred in the tumour. He returned in the early part of 1849, and while in the hospital he had the attack of head symptoms which indicated and accompanied the impaction of clot in the carotid artery. Those symptoms attracted much attention, and were carefully noted at the time, but the note-book has been destroyed, and all that is now known about them is that he became entirely unconscious, and, as is believed, hemiplegic on the left side with strabismus; that he remained in a critical condition for about a month, but that then he rapidly recovered; the pain, which had been great, was permanently relieved; the pulsation disappeared, and he left the hospital suffering only from debility and some little dyspnœa. Coincidently with the accession of the head symptoms the pulse disappeared from the right carotid. He remained free from all symptoms of aneurism, and was ad-

* Med.-Chir. Trans., vol. i., p. 272.

mitted again under Dr. Bence Jones's care in May, 1853, with well-developed phthisis. The only trace of the aneurism which then existed was a slight bulging of the parietes of the thorax over the tumour, and this bulging can still be seen in the preparation.

These notes point very decidedly to the explanation of the anatomical appearances: the expansion of the aneurismal sac being accompanied by intense pain; the impaction of clot in the carotid artery being followed by severe head symptoms and partial and transient paralysis; and the obliteration of the carotid being followed by coagulation of blood in that part of the sac through which the stream passed into the mouth of the carotid, while that portion through which the subclavian stream passed remains pervious. I will show presently that exactly the same state of parts may be produced by Brasdor's operation on the carotid artery in cases of pure innominate aneurism. And in commenting on the well-known case in which Mr. Evans, of Belper, tied the carotid artery on the distal method, I will try to show that the severe symptoms which accompanied the obliteration of the subclavian and its branches, and preceded the cure of the aneurism, depended, in all probability, as in this instance, on impaction of clot. In the case before us the cure was regarded as complete during the patient's lifetime; and, in fact, Dr. Ogle, on post-mortem examination, describes the sac as having been completely obliterated. It occurred to me, however, in recently examining this specimen, to cut a hole into the subclavian artery in order to see the reason of its preserving its size, and to ascertain the condition of its orifice of communication with the aneurism; and, having done so, and passed a probe down it, I found that the probe traversed the aneurism and passed down into the aorta; and it will be seen that the "subclavian portion," as it may be called, of the aneurismal sac is still pervious and unobliterated.

That the same thing takes place after distal ligature of the carotid for innominate aneurism, or for mixed aneurism of the aorta and left carotid, is shown by the cases operated on by Dr. Wright, of Montreal, and Mr. S. Lane. I only refer to these cases here to prove the identity of the effect of the distal ligature and of spontaneous distal impaction of clot. I shall discuss their general surgical bearing more fully in my next lecture.

In Dr. Wright's case* (which was purely innominate) the act of tightening the ligature produced an instantaneous alteration in the tumour, which became less tense and pulsated more feebly. After the patient's death, which happened eighty-seven days after the operation, "the aneurism was solid; and, upon division, its cavity was found filled with a hard mass of indurated fibrin, disposed in concentric laminæ, and of a buffy light-red colour. The only communication through the aneurism was a channel, admitting a bougie, through which the blood flowed from the aorta into the subclavian." † By Dr. Wright's kindness I am enabled to exhibit an accurate drawing of the preparation, and it will be seen how exactly the state of parts corresponds in the aneurism in which the consolidation has been produced by distal ligature and in that in which it resulted from distal impaction of clot.

In Mr. Lane's case‡ the tumour was partly aortic; at least the sac extended down into the aorta, so that the mouth of the carotid artery was much dilated. After the ligature of the left carotid no diminution in the size of the tumour was noted, and its pulsation somewhat increased. Gradually, however, the size of the tumour diminished, and it became harder. A month after the operation it is noted that the tumour was "rapidly decreasing, and that there was pulsation merely at its inner and lower side." Nevertheless, the aneurism burst into the lung, and after death it was found adhering to the apex of the left lung, with which it had communicated by a circular ulcerated aperture. The effect of the obliteration of the carotid, however, was shown here, as in the former case; for the sac "was filled with firm layers of coagulum, except at commencement from aorta and part adjoining left lung." The carotid artery was obliterated from the tumour to its bifurcation. I can see no reason to doubt that the increased pulsation which in this case followed the operation was due to the increased stream which was passing into the left subclavian close to the mouth of the aneurism, in order to replace the ligatured carotid; and that the subsequent gradual diminution of the pulsation and size of the upper portion of the tumour proceeded from coagulation extending down into the sac from the tied artery.

In connexion with this part of the subject the accompanying beautiful preparation which Sir Wm. Fergusson has been so kind as to lend me will be found of much interest. It is taken from a case in which he tied the common carotid for innominate aneurism, the patient dying on the eighth day. It will be seen that hitherto there has been no formation of clot in the tied artery, but there is a good deal of laminated coagulum in the upper part of the aneurismal sac. If the carotid artery had become filled with clot, as usual, this would undoubtedly have joined on to the coagulum in the carotid, and thus all the upper portion of the sac would have been obliterated had the patient survived.

Precisely the same effect follows on the obliteration of the subclavian artery as it leaves the sac. This is shown by the accompanying preparation, for which I am indebted to the courtesy of the authorities of Westminster Hospital, in whose museum it is preserved. The preparation is one of extreme, I had almost said one of melancholy, interest, since it shows a condition of things which I think no one, after the evidence which I here produce as to the effects of Brasdor's operation, would deny to have been in all probability curable; yet the disease was allowed to go on and to end in the patient's death by bursting of the sac into the trachea; and this must, I think, have proceeded from the want of confidence which is commonly felt in the distal operation. The case is reported by Mr. Heath in the Pathological Transactions, vol. ix.; and it is curious that the same volume should contain so excellent an example of the effect of obliteration of each terminal trunk in innominate aneurism, the case of spontaneous cure (at St. George's Hospital) from obliteration of the carotid being reported at a subsequent page of the same volume.

In the present instance the diagnosis was most accurately and successfully made. The limitation of the aneurism to the innominate artery was at least thought highly probable. The obliteration of the right subclavian artery was inferred from the absence of pulse and comparative coldness of the right arm. The left subclavian was also obliterated, but this was not discovered during life, since the collateral circulation had been so completely re-established that the pulse, though weak, was quite distinct. However, all the essential features of the case were thoroughly well ascertained; and if it had been an admitted fact—as I hope it will be henceforth—that obstruction of the subclavian artery as it leaves the sac will probably be attended by obliteration of the subclavian portion of the sac, and obstruction of the carotid at any point by obliteration of the carotid portion, could any indication in surgery have been clearer than to tie the carotid in this case? It is true that if the aneurism had extended down to the arch of the aorta the operation would probably not have cured the aneurism, but we can hardly doubt that it would have stopped its growth towards the windpipe, and so saved the patient's life.

Again, in the most instructive case which Dr. H. Davies has reported in the "London Hospital Reports," vol. i., p. 1, the same state of parts existed. There is here, it is true, the difference that the aneurism extended, as in the diagram from the case of tubular aneurism at St. George's, for a considerable distance along the tube of the artery, involving not the innominate only, but the greater part of the subclavian also. This terminal portion of the sac, however, was obliterated by the obliteration of the subclavian artery and its branches. "The end of the sac was solid with dense coagulum, and there was also much solid material at the posterior part of its thoracic portion. About the opening of the carotid, however, and from thence upwards and downwards, there was a considerable cavity unoccupied by clot." "Thus, then," says Dr. H. Davies, "the common carotid (right) was the only vessel still pervious which the innominate supplied. If this artery had been tied beyond the sac (at a part where it was itself quite healthy) the blood in the latter would have been quite stagnated. It must be noted that the only part of the sac in which the blood was not coagulated was the pouch near to the origin of the carotid. Nature had done half of the distal operation, and by far the more difficult half; and, as the dissec-

* The Treatment of Aneurism of the Arteria Innominata by Ligature of the Right Common Carotid Artery, p. 16. Montreal, 1856.
† Ibid., p. 25.
‡ Cooper's Surgical Dictionary, by Lane, vol. i., 214.

tion proves to our chagrin, nothing would have been easier than to have put the remaining fluid contents of the sac in a state of complete stagnation."

The accompanying preparation from St. Bartholomew's Hospital (ser. xiii., 69) is to the same effect, though it has been spoilt for our present purpose to a certain extent in making the section. It is cursorily alluded to by Sir W. Lawrence in the sixth volume of the "Medico-Chirurgical Transactions." In the Catalogue of the Museum it is stated that the opening of the subclavian artery out of the sac was obstructed, as it obviously has been, though the obstructing clot has been cut through in laying the artery open. Here again the subclavian portion of the sac is firmly obliterated, and I see no reason whatever to doubt that the aneurism might have been cured by tying the carotid. Another circumstance in this preparation which is worthy of notice is, that there is a large coagulum floating loosely in the sac. If a detached piece of this had fallen into the mouth of the carotid artery, the sac would, I have no doubt, have been finally obliterated. I believe this is exactly what took place in Mr. Evans's case, and I exhibit the preparation in order to show how easily such a cure might have been produced.

I cannot prove from dissections that the same obliteration of the subclavian portion of the sac would ensue if we could artificially obliterate the subclavian at its mouth, though there can be no rational doubt on the subject.

The cases in which the subclavian alone has been tied for innominate aneurism have been only two in number hitherto, and as in both cases the ligature has been placed on the third part of the artery, and branches have therefore been left between it and the sac, which must have instantly enlarged to carry on the circulation, neither of them is strictly analogous to the above cases, where the subclavian is obliterated at its origin from the sac.

But I may remark that both in Wardrop's and Broca's cases the immediate relief to the dyspnœa from which both patients were suffering severely at the time of operation, testifies to some diminution of the part of the tumour which compressed the trachea.

I trust that the above facts, which are all that time allows me to refer to, afford definite proof of the curative power of distal obliteration of the arteries in innominate aneurism, and show that there are some cases of this disease in which the operation is not only allowable, but imperative.

In my next lecture I will try to show that there are cases of aortic aneurism in which distal obliteration may prove beneficial, and will then review the experience already acquired of the distal operation for thoracic aneurism.

ON THE

EXTINCTION OF TYPHOID FEVER IN THE MILLBANK PRISON BY THE DISUSE OF THAMES WATER.

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(*Concluded from page* 780.)

THE exact study of the causation of diseases among a free population is beset with great difficulties, owing to the infinite variety of the conditions under which the diseases occur; so that it is impossible to eliminate the inert accompaniments from the causal accompaniments. But, in the case of Millbank, the conditions are so few, and the facts so definite and well authenticated, that the process is easy. The history of the institution, in the last fifty years, may be regarded as a great physiological investigation, in which the effects of filtered Thames water on the human constitution have been determined with almost the precision of a chemical experiment. It is instructive, as an illustration of the difficulty of discovering the true cause of sickness, to note that, of all the many distinguished physicians and men of science who were consulted from time to time about Millbank, no one appears for the first thirty years of its existence to have had a suspicion that the water-supply was in any degree answerable for the epidemics of fever, diarrhœa, and dysentery that visited the institution so frequently. During the inquiry conducted for many months by the two Select Committees of the House of Commons in 1823 and 1824, the state of the water-supply was not once mentioned. The earliest mention of any suspicion of the water-supply is found in the Report of the Directors of Convict Prisons for 1852. At page 123, Dr. Baly says: "It was determined to put to the test of experiment an opinion more than once mooted respecting the cause, not only of the cholera, but also of the other kinds of bowel complaint which in a mitigated degree, are almost constantly present in the Millbank Prison. It had been suggested, namely, that these diseases are produced by the Thames water, which the prisoners drink; and although for some years this water has been well filtered within the prison and freed from all obvious impurity, it was still possible that matters in solution in it produced a deleterious effect." It is evident from his later reports that this opinion had little weight with Dr. Baly; but, notwithstanding, he strongly recommended that it should be put to the test of experiment. His own opinion, which appears to have been shared by every physician who was consulted about the prison, was expressed as follows in his report for 1849, and repeated in several later reports:—"The causes of the general liability of the prisoners to fever," he says, "appear to be the low site of the prison, the proximity of low and ill-drained ground, open sewers and manufactories which fill the air with impurities, the construction of the building which impedes the free circulation of air through it, and the proneness to suffer from general causes of disease which is produced by the state of imprisonment." Dr. Baly was evidently surprised at the remarkable results that followed the introduction of a pure water-supply in August, 1854. He could not believe that the sudden cessation of cholera that followed in six days was due to the change of water-supply, but the continued healthiness of the prison in after years gradually shook his scepticism, though some traces of it remain apparent to the last. In his report for 1855 he writes: "One of the special tests of the health of Millbank prison is the degree of prevalence of diarrhœa, and there have been fewer complaints on account of this disease than in former years. This improvement in the health of the establishment began towards the close of 1854. It followed quickly upon the substitution of the artesian well-water for the Thames water, and it is, most probably, in great part due to the greater purity of the water at present in use. It may be hoped, therefore, that this improved health of the establishment will at all events to some extent be permanent. But it is not to be expected that the convicts in Millbank Prison will suffer as little from diarrhœa, dysentery, and fever, as the convicts in prisons differently situated."* In his report for 1856 a further advance of opinion appears. He says: "I have again to report that the health of the prison is satisfactory, and that those diseases which have hitherto appeared to be inseparably connected with locality have been less frequent. These favourable results are, I believe, attributable in great part to the purity of the water with which the prisoners are now supplied. I have, therefore, a strong hope that they will be permanent." It may here be stated that Dr. Baly mentions no other cause to which the improvement in the health of the prison could be attributed.

Dr. Guy, who succeeded Dr. Baly in the medical charge of the prison, expresses his surprise that, although the Thames was unusually offensive in 1859, the prison was unprecedentedly free from sickness. In 1862 Dr. Guy reports that "the male convict population are at least as healthy as any other population with which it can be compared, and that the female convict population suffers but little by comparison with the population out of doors." In 1871 the present able medical officer, Mr. Gover, reports that "the prisoners have continued to be free from every form of disease which could call the sanitary arrangements into question, as free as if the prison occupied the healthiest site in the kingdom." These extracts show very strikingly the permanence and the thoroughness of the change that has taken place in the health of the prison.

The sanitary history of Millbank appears to me to warrant the following conclusions:—

1. That the extinction of typhoid fever, and other diseases of the same class, is quite within the range of practicability.

* The experience of eighteen years shows how groundless this apprehension was.

2. That the extinction of one class of zymotic diseases is not necessarily followed by zymotic diseases of a different class. For example: it is supposed that the increased prevalence of scarlatina and measles of late years is due to the partial displacement of small-pox by vaccination. The case of Millbank shows that it is practicable to protect a community against every kind of zymotic disease. Ignorance of sanitary science is the great obstacle to the extension of this protection to the free population.

3. That since some of the ablest physicians in London failed for many years to detect the true cause of the unhealthiness of Millbank prison, and assigned causes for it which later experience has found to be unconnected with it, the probability is that a similar error is frequently made elsewhere, and that the prevalence of some zymotic diseases is ascribed to locality, malaria, heat, cold, variations of temperature, moral depression, and other intangible influences which would be entirely removed by the general disuse of impure water.

4. That as it required long years of observation to establish the noxious influence of Thames water in Millbank, even when well filtered, under conditions very favourable for detection, we should be cautious in accepting the opinion, based on the results of chemical analysis, that the use of that water by the population of London is free from danger.

5. That the vital statistics of prisons, carefully kept and tabulated, would be of the greatest value as data for the investigation of the causes of disease. Those now published by the Directors of Convict Prisons are excellent. The sanitary information given in the reports of the Inspectors of Prisons is of the most meagre description, and of no practical use.

Sydney-place, South Kensington, May, 1872.

OPHTHALMIC NOTELETS.

BY J. F. STREATFEILD, F.R.C.S.

IN the few little practical notes I now propose to issue, I have chosen those for publication which represent something, at least, which is original, and which may or may not seem to be worthy of more notice and of greater extension by myself hereafter or by others whom they may interest by-and-by.

I. ON THE PRESERVATION OR DESTRUCTION OF THE CONJUNCTIVA IN CASES OF EXTIRPATION OF THE GLOBE.

When surgeons, not so very many years ago, used, ignorantly, very rarely to remove an eyeball, and never, probably, unless the case was supposed to be one of cancer, whether invading or not the surrounding orbital tissues, they took a long sharp-pointed knife, curved on the flat, and with a circular cut, including the eye, they removed it and a large portion of the neighbouring soft parts: the conjunctiva, in the general confusion, was, for the most part, and irregularly, also excised. But when it was found, by the injurious effects of sympathetic irritation and inflammation, that very many lost eyes (certainly all that are blind, in the ophthalmic sense, and painful) should be removed, and also that seldom comparatively any more than just the eyeball itself need be removed, and that when, and though, it must be removed, as little as possible need be done, a mode of operating for this purpose was re-introduced, sometimes now, therefore, called "enucleation": the conjunctiva was henceforth all and entirely to be carefully preserved, not only for the sake of its preservation, and that only as much as need be should be done in the operation, but to give a regular space, as large as possible, and sufficient room for the wearing of an artificial eye of good size. A considerable cavity, called the "conjunctival sac," is left thus after the operation, now usually done as I have said. In the centre, at the bottom of this space, is to be felt a nodule with a cruciform indentation, where the four rectus tendons are lying involved in the central dense cicatricial tissue, and are seen to move it about in some degree when the other eye is moved. And this hard mass is to support the artificial eye, and by the muscles of the excised eye it is to get all the movement that can be now obtained for an artificial eye. And this is the best we can do; for "abscission" is an operation that must be avoided, and will be certainly soon altogether given up. All this I believe to be indisputably true, and the best line of practice of which we have at present any certain intimation in a general way. It holds good in our private practice in nearly all cases, because the patients will almost invariably desire, as they can well afford the expense and the trouble involved in, the wearing of an artificial eye. But in cases of some few of these well-to-do patients of a different mind, and in very many of those of our hospital patients, this trouble and expense, if well understood beforehand by the patients themselves, will not be entertained, or, if it is entertained, it is in the future found to be impracticable. Some patients, again, are met with, whether in private or in hospital practice, who either before or since the excision operation are quite incapable, and cannot by any surgical method be made capable, of wearing an artificial eye, even if they desire it; such are the cases of irregular cicatrisation within the lids, caused by wounds or burns, or caustics, or ill-surgery, and producing obstinate entropion, strong cicatricial bands in any direction (that cannot be isolated by a probe passed beneath them), or a narrowing of the whole conjunctival sac or of the palpebral aperture by any of the above causes. Once again, though the palpebral aperture be not narrowed nor the conjunctival sac contracted, there may be an obstinate ectropion, probably of the lower lid, which cannot be so well remedied by any surgical method as securely to retain an artificial eye.

I beg to propose now, instead of the unvarying rule of the preservation in all cases of the whole or as much as possible of the conjunctiva whenever the operation of extirpation of the globe is or has been done, its total destruction in the following cases.

1st. When the patient entertains an objection to the having to wear a glass eye, either before the excision operation or at any subsequent time, because of (*a*) the trouble it occasions, (*b*) the recurring expense, (*c*) the annoyance of conjunctival discharges, &c.; and therefore he, after a full explanation, gives up the idea of wearing an artificial eye for the future.

2nd. When the wearing of an artificial eye is impracticable, and cannot be made practicable by the arts of surgery, by even any one firm band whose anterior end is at or near the edge of either eyelid. A full explanation, again, of the nature of the case to the patient is here also necessary; or, at some time hereafter, though the mind of the operator is free of any blame, yet, if he adopt the operation I now propose, the patient may falsely say he made it impossible that an artificial eye should be worn.

3rd. When the bands are many or large, or the contraction of the conjunctival sac is such, or the lids so considerably though incompletely bound together, or so everted, that neither the surgeon nor patient can have any hope of an artificial eye being worn.

At present the surgeon in view of such a case thinks he has no more he can do, and, indeed, he thinks the same in cases I have classed under the first and second heads. He dismisses the cases of all three classes from his mind as of those with which he has no longer any active practical concern. But I believe he may yet relieve the patient of much annoyance and of some of the deformity, by finally curing all discharges by altogether permanently closing the eyelids. At present the patients of the three classes above are condemned for the future to go about with a small patch tied over the empty orbit, obliquely over the forehead and round the head. We constantly meet with them in the streets, and, if they are begging, they expose the hideous gap, bleared and running with matter by lodgment of foreign bodies in the sac, by the effect of changes of temperature, &c., on the sensitive mucous membrane, and, above all, by the irritation probably of the row or rows of eyelashes fallen in upon and brushing the mucous membrane, unsupported by an artificial eye. It is an improvement *in appearance*, as well as a comfort to the patient; in any case, if an artificial eye is not or cannot be worn, whether the palpebral aperture and conjunctival sac be full-sized or almost closed by cicatricial contraction. It is a disgrace to surgery not to close up the ugly chasm, and it is easily done.

I remember some time ago a man at University College Hospital for whom it was necessary that I should recommend a lost eye to be removed; hesitating and procrastinating, as patients in such cases, and not suffering much

pain, will naturally do, finally consenting, and stipulating that the eyelids should be closed up over the wound, for he would not be troubled to wear an artificial eye. At this hospital there is a fund out of which any after-surgical appliance necessary for the good result of any operation can, on the certificate of the surgeon, be supplied. At the Moorfields Ophthalmic Hospital it is an old regulation that every patient for whom an eye has been removed, be supplied by the hospital authorities with a first artificial eye, and this regulation is well known to the patients and is constantly quoted by us in our endeavours to overcome the natural objections of patients to the removal of a lost eye; so that at this hospital our patients the sooner determine to have the necessary operation done, and accept, as a matter of course, the gift of the hospital. They think little of the saving of money that will be required of them to replace the artificial eye, which is, perhaps, soon broken, or is, in a year and a half or two years, worn out, as a remote event, and numbers of them come back to us sooner or later in one or the other case, lamenting their inability to procure for themselves the missing artificial organ. Then the money required at once is not forthcoming, and, in the absence of any competition in London in the making of the eyes to be worn, the expense is the more considerable. They wear the inevitable ugly patch in the empty orbit, or a handkerchief is tied over it, and, if they cannot afford an artificial eye, and it cannot be afforded for them, how much better off they would be with their two eyelids finally and totally closed together. I have lately at Moorfields had a patient who had had an eye either carelessly excised or previously injured in such a manner as to have ultimately necessitated its excision, and a hard, firm, broad band of cicatrisation as a consequence extended back from a part of the margin of the lower lid into the deeper parts of the orbit. It was impossible to remedy this state of things and to enable the patient to wear a glass eye. He was much disappointed in this, but, as it could not be, he assented to my proposal that the eyelids should be entirely closed up. Under anæsthetic influence I incised the conjunctiva and dissected off great part of it, beginning at the bottom of the irregular contracted sulcus between the lids. The bleeding of course was excessive, and not all of the conjunctiva was removed. When healing of the wound thus caused had taken place, of course the lids were almost closed, but little deep pits and irregular spaces between the lids remained here and there, where some conjunctiva had been left. I then finally destroyed all this remaining conjunctiva by use of the actual cautery, the iron, red hot, thrust to the bottom of the deep hollows, and drawn horizontally along the parts between the lids yet lined with conjunctiva, so as to draw them closely together in the next process of cicatrisation. It was perfectly successful, and the patient can have no more unpleasant conjunctival discharges from useless mucous membrane, and his deformity is much ameliorated, as much as it is possible.

But it is so difficult to dissect off the delicate conjunctiva from the irregular surface and deep-seated space in which it lies, when the eye has been removed at a previous operation, and the bleeding meanwhile is so great as to obscure very much the operation, that I would suggest it be destroyed by smearing over the conjunctiva, carefully preventing its transgressing the margins of the lids, a thin paste of chloride of zinc, to be left there long enough to destroy the conjunctiva, and then to be all thoroughly washed away, and the opposite surfaces allowed to heal. If any small spaces are then left between the lids of remaining conjunctiva they should be got rid of and closed up by use of a hot iron, and left to unite.

It will be so difficult to strip off or dissect away the whole conjunctival surface, leaving the subconjunctival tissues, at the first operation, when an excision is done, that it will probably be found most convenient to excise the eye, as it has been done of late years, preserving the conjunctiva and allowing the deep wound to heal; when, if the patient prove to be indifferent to the appearance of having a second eye, or unwilling or unable to submit to the expense or the trouble of the substitute, at a second sitting the conjunctiva may be then, with the assent of the patient, by a secondary operation totally destroyed by producing a slough of all the mucous surface, and consequently a final closing of the eyelids.

Besides these cases, it is, I believe, a surgical duty in all cases of incurable contracted cicatrices within the lids, or of thickened everted lids, that, when the eye has been removed, the useless conjunctiva be not left to produce offensive discharges, and to disfigure the patient more than he need be disfigured, and that a similar operation with chloride-of-zinc paste supplemented with the hot iron be adopted, or that some other means to the same end be employed.

ENGLISH MIDWIVES; THEIR HISTORY AND PROSPECTS.

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CHAPTER V.—SEVENTEENTH CENTURY (*continued*).

Elizabeth Cellier.

THIS celebrated midwife won for herself a place in English history. She was the owner of the tub from which the "meal-tub plot" obtained its name; and for the part she took in this obscure political movement she was, on the 30th of April, 1680, arraigned before Lord Chief-Justice Scroggs for high treason.* It was then stated that "Elizabeth Cellier and other false traitors at the parish of St. Clement Danes advisedly, devilishly, maliciously, and traitorously assembled, united, and gathered themselves together, and then and there devilishly, advisedly, maliciously, cunningly, and traitorously consulted and agreed to bring the said Lord the King to death and final destruction, and to depose and deprive him of his crown and government, and so introduce and establish the Romish religion in this kingdom." To this charge she pleaded "Not guilty," and during the trial defended herself most ably. The principal witness against her was Dangerfield, whom she proved to be an unpardoned criminal, and consequently incapable of giving trustworthy evidence. Her conduct at this trial is thus alluded to in some lines entitled "To the praise of Mrs. Cellier, the Popish midwife":†

> "You taught the judges to interpret laws;
> Shewed Sergeant Maynard how to plead a cause;
> You turned and wound, and rogued 'em at your will:
> 'Twas trial, not of life or death, but skill."

The jury returned a verdict of "Not guilty"; and afterwards applied, as was customary, to Mrs. Cellier for a guinea apiece. She wrote to the foreman declining to pay them, and making the following characteristic offer:—"Pray, Sir, accept of and give my most humble service to yourself and all the worthy gentlemen of your pannel, and yours and their several ladies; and if you and they please, I will with no less fidelity serve them in their deliveries than you have done me with justice in mine."

Elated by her success, Mrs. Cellier published a book entitled "Malice Defeated, or a Brief Relation of the Accusation and Deliverance of Elizabeth Cellier, wherein the proceedings both before and during her Confinement are particularly related, and the Mystery of the 'Meal-tub' fully discovered; together with an Abstract of her Arraignment and Tryal, written by herself for the satisfaction of all lovers of undisguised truth. London, printed for Elizabeth Cellier, and are to be sold at her house in Arundel Street, near St. Clement's Church. 1680."‡ She begins this remarkable work with a short personal history: "I hope it will not seem strange to any honest and loyal person, of what way of religion soever, that I, being born and bred up under Protestant parents, should now openly profess myself of another Church." She next describes her life in prison, and declares that whilst there she heard people being tortured, and that she knew a great many other things, and could say much more "when His Majesty makes it as safe to speak the truth as it is to do the contrary." For the statements made in this work she was again arrested and tried for libel. The charge to the jury ran as follows:

* State Trials, 32 Charles II. † British Museum, C. 20, f.
‡ It was believed by some that Gadbury wrote this book. See "Weekly Packet," Friday, April 22nd, 1681.

"You gentlemen that are sworn,—Elizabeth Cellier stands indited by the name of E. C., wife of Peter Cellier, of the Parish of St. Clement's Danes, in the County of Middlesex, Gent.; for that she, being of the Popish religion, not having the fear of God before her eyes, but being moved and seduced by the instigation of the devil, falsely and maliciously endeavouring and intending Our Sovereign Lord King Charles II. that now is, and the Government of this Kingdom of England by law established, to bring to hatred and contempt &c., did falsely, maliciously and seditiously write and publish a scandalous libel intituled 'Malice Defeated,' &c."

Mrs. Cellier was not so happy in her defence during this trial. Pleading for mercy, she said she was only a weak woman, and that she had lost her father and brother both in a day for the King. The truth of this latter statement was, however, called in question by a writer in the "Anti-Roman Pacquet,"* who says—"We could not but laugh when in her late blessed libel she shammed the world with a story of her families loyalty, father and brother, slain in his late Majesty's service, &c.; whereas we are assured that her native name was Marshal, and her father a brazier (not to dishonour the lady's lineage with the more vulgar name of tinker) in Canterbury, and her brother yet living at Maidstone; neither of them masters of any more loyalty than their neighbours. This brazen pedigree is suitable to her complexion." At length the trial was brought to a close by the question from the clerk of the Crown, "How say you—is Elizabeth Cellier guilty of the writing, printing, and publishing of the libel for which she stands indited, or not guilty?" Foreman: "Guilty" (at which there was a great shout); and the verdict was recorded.

This trial took place at the Old Bailey on the 11th and 13th of September, 1680, and on the latter day the Recorder gave his judgment thus:—"Mrs. Cellier, the Court doth think fit for example's sake that a fine of one thousand pounds be put upon you; that you be committed in execution till that thousand pounds be paid; and because a pecuniary mulct is not a sufficient recompense to justice which you have offended, the Court doth likewise pronounce against you that you be put on the pillory three several days in three several public places. In the first place, in regard her braided ware received its first impression and vent at her own house, it is thought fit that she stand (as near her own house as conveniently can be) between the hours of twelve and one for an hour's space at the May-pole in the Strand on the most notorious day. I think there is a market near that place; let it be on that day. At another time that she stand at Covent-garden on a publick day the like space of time. A third time that she stand at Charing-cross on the most publick day for the space of an hour. And, in the next place, that she find sureties for her good behaviour during her life. And in every place where she shall stand on the pillory some parcels of her books shall, in her own view, be burnt by the hands of the common hangman, and a paper of the cause to be put upon the pillory." Then the Court charged the sheriff that he take care in every place for a sufficient guard that the peace may be kept, and she was returned to the gaol.

When the time arrived for Mrs. Cellier to be placed in the pillory, she feigned sickness, having provided herself with an emetic to assist her in producing suitable symptoms; but as it was expected that she would use some artifice to thwart the execution of her sentence, the precaution had been taken of telling her that her appearance in public would take place the day before the time actually decided upon; and so, as Prance says, "she took her physick a day too soon." Finding herself beaten at her own weapons (which could not have been an easy task if it be true that "her two cardinal virtues were ambitious impudence and a prodigious knack of counterfeiting"), she devised a still more elaborate scheme whereby she might stay the hands of the law, the history of which is thus related by Prance:†—"Understanding that she was to stand in good earnest on the morrow, being Saturday, she used another artifice, declaring herself with child. This appeared improbable in a person of her reverend years (fifty odd). Captain R—— sending her up word that she must prepare to go forth to the wooden engine, she, in dying tone, replyed that she was not able to stir out of bed. Whereupon he ordered three or four honest women to go up and dress her. They accordingly, with much adoe, accoutred her; but then she would not stir a foot, so two men very gingerly brought her down, and would have seated her in a chair, but she tumbled herself all along the floor, and roared out, 'Oh, my back! Hold my back; hold my sides. I am in labour; call some women. For modesty's sake let the men be gone. Use not a woman in my condition more barbarously than heathens, more savagely than Turks and Indians,' &c. At last, after a world of groanings and a thousand bewitching wry faces, an able physician and several discreet women were sent for. They searched her so narrowly that they discovered the whole cheat, and found that the good lady was no more with bearn than the town-bull, but only having over night privately gotten a bladder of blood had used her skill in creating the necessary symptoms, and, preparing certain clots of it, had put them in her body," &c. This incident is frequently referred to in the broadsides of the times:—

> "And Madam Celliers there she stood
> With a bladder which was filled with blood."*
> "Tho' she who midwives trade well understood,
> Miscarried with her bladder cram'd with blood."†

This latter device having failed, Mrs. Cellier passed through her trying ordeal on the 18th of September, 1680. A writer says: "The sentence was executed upon her in the presence of thousands of spectators, who (besides whole volleys of curses spent on her), had it not been for a board that she held in her hand to defend herself with, had certainly brained her before she was taken down; but being by a strong guard at last delivered from the fury of the rabble, she was carried back to prison."‡ In a broadside published on Dec. 20th§ may be seen a picture of Mme. Cellier seated in front of the pillory near the May-pole which appears behind in the Strand, and with a fire burning near. Many men, armed with long staves, stand about the scaffold. She holds a large shield in her hands, and is dressed entirely in black, with a widow's hood on her head. "A satire upon Mme. Cellier's standing in the pillory by a person of quality" is preserved in the British Museum.‖ The character of it may be gathered from the following lines:—

> "Poor Cellier, you had better brought to bed,
> Anything, than to have a plot in triumph led,
> And thus to be received into the world's arms
> By dirt and stones and other warlike arms."

Five days after she appeared again upon the pillory, as we learn from the following notice in a newspaper of that time:—"On the 23rd instant our renowned championess, Cellier, disgraced the pillory at Charing-cross."

Unfortunately for Mrs. Cellier her biography has been written by her enemies. We must therefore give her the benefit of every doubt, and view with suspicion every imputation against her character. Her early history has already been alluded to, in which she is said to have been the daughter of a tinker in Canterbury. Dangerfield,¶ her former friend, but afterwards bitter enemy, says: "The ever memorable Mme. Cellier (that notorious midwife that has brought abundance more lies than ever she did children into the world) was twenty years since wife of a certain merchant of this city. She received into her house an Italian and his negro servant, and fell in love with both, and was delivered soon after of a tawny-faced boy, to the great amazement of all beholders. Her husband, overdone with grief, went to Leghorn, where he ended his days. About twelve years since she lived near Holbourn, and afterwards at Westminster, where she met a second husband, as she says, 'hearing the first was dead,' and by him she had divers children. He also left Mrs. Cellier and went to Barbadoes, where he died. She then removed to the City of London, where she set up and professed the craft of midwifery, and also contrived to insinuate herself into the affections of one Mr. Cellier, a French merchant, and by degrees prevailed with him to marry her. Some time after this she removed

* Friday, Oct. 29th, 1680: Cellier's, the Popish Midwife, her Pedigree.
† Mr. Prance's Answer to Mrs. Cellier's Libel, &c.; to which is added, the Adventure of the Bloody Bladder: a tragi-comical farce, acted with much applause at Newgate by the said Mme. Cellier, on Saturday, Sept. 18th. Faithfully related by an eye- and ear-witness, 1680.

* The Solemn Mock Procession, Nov. 17th, 1680.
† Commentation on the late wonderful discovery of the new Popish Plot, 1680.
‡ The Anti-roman Pacquet, Friday, Oct. 29th.
§ The Popish Damnable Plot, &c.
‖ The Devil Pursued; or, the Right Saddle laid upon the Right Mare.
¶ Answer to "Malice Defeated." 1680.

to Arundel-street, where she exercised her skill, and so improved her husband's business as to produce a plentiful livelihood."

The writer of this scrap of biography was introduced to Mrs. Cellier by one Mrs. White, a midwife whom she had rescued, like himself, out of prison by paying her fees. He was employed by Mrs. Cellier ostensibly in collecting her husband's debts, but in reality as a political agent. A characteristic incident which occurred during their friendship, relating to the proposed assassination of Lord Shaftesbury, is mentioned by Mansell.* Lady Powis and Mrs. Cellier were together when Dangerfield informed them that he could not assassinate Lord Shaftesbury. Lady Powis, annoyed, called him "cow-hearted fellow," and said she would do it herself. Mrs. Cellier answered, "No, madam, that shall never be, for I will make the world know that our sex are braver than they of the masculine; and myself will go and do the work." She went, but Lord Shaftesbury, suspecting mischief, "kept a strict eye upon her, and observing her to be fumbling about her petticoat or pockets, gently laid his hands upon hers, and pleasantly drolled with her until she left." She, however, returned again, as if with fresh resolve, but he laid his hands on hers as before, and "dasht her out of countenance." In the Luttrell collection in the British Museum is a picture of "Seleir Popish Midwife," holding a dagger behind her back, intended to represent the part she acted in this affair.† The incident is also referred to in the satire before mentioned:—

> "But who would think it from the woman fine,
> A thing whom Nature itself has made divine,
> That she should act such horrid barbarous things,
> As to design to stab statesmen, and to murder kings."

To use up all the available materials, and to give a full history of Elizabeth Cellier, would involve entering into the minutest details of the mysterious "meal-tub plot." But as it is more particularly as a midwife we are interested in her, this short sketch of her political life must suffice. Without it it would be impossible to obtain a comprehensive view of her character. She was a fearless, ingenious, unscrupulous, and energetic woman, similar in reputation to Dame Ursula Suddlechop.‡ In testimony of her political eminence we may quote the following lines written by an inimical satirical Protestant poet:—

> "Thus have you seen Pope Joan by far outdone,
> Nay, from hee-Popes she has the mitre won;
> 'Tis hers by merrit, who dares argue less,
> When this Pope dies she shall be prelate Bess."

[*Note.*—If any reader of THE LANCET knows of a copy of "The Domestic Midwife," Lond., 12mo, 1795, by Margaret Stephen, or Stevens, I should be glad to have the opportunity of buying or borrowing it. Address, 1, Upper Wimpole-street, W.]

(To be concluded.)

* Narrative of the late Popish Intrigue.
† A Tale of the Tubbs, or Rome's Masterpiece Defeated. Nov. 1679. Vol. iii. 137.
‡ Fortunes of Nigel, chap. viii.

EXPERIMENTAL OBSERVATIONS ON THE APPEARANCE OF THE LOWER FORMS OF LIFE.

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(*Concluded from p. 791.*)

THE next experiments (4) were as follows:—

Fresh, or rather living and contractile, muscular fibre, cut from the centre of a piece of flesh with a bright scalpel, was placed in an equally clean bottle heated in an oven, in which also the apparatus was adjusted; then was added distilled water, obtained from a steam-pipe of an engine working at a pressure of from 20 lb. to 30 lb. to the inch, which neither contained life nor generated it after several days' exposure. After boiling some time a cork was adjusted, through which a tube formed like the letter **N** was thrust. Asbestos soaked in sulphuric acid was packed in the tube, and the whole heated before being inserted. Immediately after the insertion the bottle was withdrawn, and the cork &c. well cemented with sealing-wax. At first the vapour from the bottle escaped outwards through the tube, but the void was shortly refilled by the air passing inwards in a gradual manner through the asbestos. Of these bottles, five in number, the usual forms of life were afterwards found in four, though the fluid was in one or two of the bottles strongly sour, from the acid having gained access.

Two glass-stoppered phials were cleaned, heated, and half-filled with distilled water which contained nothing visible under a high power of the microscope: in one was inserted a bit of liver from an animal just killed; in the other, a bit of muscle, still contractile, from the biceps of an arm just amputated for a railway accident. Both bottles had been kept boiling for some time before adding the ingredients, and were stoppered whilst boiling, and the stoppers cemented. In both, after standing, motile bacteria-like particles appeared. Or the phials may be stoppered by fine baked corks, probably transmitting but at the same time filtering the air. Infusion of hay and of belladonna so treated presented abundance of animal forms; solution of morphia none, but only a fine vegetable growth.

A piece of flesh cut from an animal just killed was placed, with due precautions, at the bottom of a tube about a foot long, previously cleaned with caustic fluids, and which was then filled with distilled water, and covered in one experiment with wax, and in the other with oil of turpentine. Life appeared in both cases, and at the bottom of the tube rather than above.

Recently some of Liebig's extract of meat was boiled and semi-carbonised in a teaspoon in the flame of a spirit lamp, then boiling distilled water poured upon it in three tubes, the top being covered with heated oil and wax. After standing about ten days, bacteria, true monads, a few vibrios, and some higher infusoria were found in all three more or less. In the tube where the solution was weakest and the bacteria scarcest, there seemed an abundance of molecules—the first stage of the latter?

The writer, though he cannot offer it, presumes that an *experimentum crucis* would be one where the animal or vegetable substance used could not be supposed, either from strong heating or otherwise, to contain any extraneous germs; the water of solution likewise being devoid of them, by being produced, for instance, from steam at a high temperature, or by some other effective way; and the atmosphere being free from any suspicion of its being the medium, say by its being artificially formed from its constituent gases. The difficulties, including those of manipulation, scarcely appear to be of an insurmountable kind, to one more accustomed to chemical operations than the writer. Under the above circumstances forms of life ought, if heterogeny be true, to appear as freely as in ordinary air, which certainly was not the case in most of our experiments. Yet we may have now made it appear that we are inclined to believe that in such experiments neither the air nor the water furnishes the organisms, if organisms they be, but the organic substance used, and especially in a state of change. Further, that germs, ova, or spores do not precede their appearance. They are the constant accompaniments of decomposition, and so associated with the last change or death of organic matter; at any rate, as much this as what is grandiloquently called the "origin of life." In a short time they pass away, and higher infusoria and green algæ and Pediastreæ, as Chlamydococcus, Colletonema, Euglenæ, Uvellæ, and Scenodesmi, appear. With the income of bacteria in a fluid there is presented an appearance, such as has been often noticed, very like a simultaneous generation from dead organic matter, rather than an irregular birth from germs received from the air, though the pellicle certainly often forms at the surface. In this zoogloea myriads of elongated atoms are arranged, either the precursors or the residue of bacteria; and at a later date, as remarked by Dr. Bastian, differentiated vesicular portions are seen, which, when freed by their vibratile force, enlarge and change somewhat in form, and thus become ordinary oval infusoria, such as Glaucoma.

In October, 1865, four experiments (5) were made with simple infusions of bread-crumb, bruised oats, secale cornutum ground, and chopped hay, the vessels containing the liquids being all alike, and simply placed to stand side by side. Though the organisms which appeared were mostly

similar to those already named (as to genus), yet they varied a good deal in size and shape in the different vessels, and especially in the date at which they made their appearance, as well as their departure. In the infusion of secale peculiar monads tardily appeared, and continued for some time, vibrios scarcely appearing at all. If glasses of solution of gelatine, albumen, sugar, and flesh be placed with the same surroundings, similar facts will be noticed: life will appear in the last very early, much later in the first three solutions, or in a compound of all three.

We lately placed three wide-mouthed phials containing distilled water, solution of the white of egg, and solution of flesh, in a dish, on which was poured a stratum of very putrid animal infusion swarming with bacteria. The phials were covered with a bell-glass raised a little above the putrid liquid. Three other phials were placed under another bell-glass with the same surrounding circumstances, but without the putrid liquid. Three others were entirely exposed to the atmosphere. No bacteria or germs could be detected in the dew collected from the interior of the first bell-glass. After some days there was an abundance of life in the solutions of flesh, some appearance of it in the solutions of albumen, none definite (as long as the experiment lasted) in the water. The genesis of the forms was about contemporaneous in all the sets, though the fully exposed solution of flesh appeared to undergo its changes more freely. Such a variation in advent, increase, shape, and disappearance of these forms of life, as seen in the experiments recorded in the preceding paragraph, and their non-variation in these, must be an argument against their origin from the incumbent atmosphere, to say nothing of the difficulty of supposing the spores or eggs of aquatic organisms to exist there. Though we have found that a microscopical slide placed over fermenting beer, or fading diabetic urine, exhibited the spherules of the yeast-plant, even in sequence, as well as minute molecules, yet tufts of developed and fructifying fungi seen on the surface of the liquids accounted for this; and other slides, placed over putrid fluids, presented no bacteria or vibrios, even if the zooglœa was present. We, like others, have occasionally revived these forms of life, after being dried up, by applying moisture, but have as often failed. It must be conceded, however, that the lower vegetable forms, as fungi, algæ, and lichens, originate in suitable localities from spores falling from the air; and these air-borne spores must be of different species, sufficient to produce all the objects of our observation, in cases of low terrestrial vegetation, or else we should have to suppose that different species of organisms arise from *one* kind of germ or germinal matter, which doctrine would be but a small remove from that of the heterogenist.

It must be allowed, though the appearance of these vibrios and bacteria in fluids that have been but moderately boiled and sealed from the air, may not satisfactorily prove that they have been generated from dead organic matter, it being possible that they or their germs, notwithstanding the boiling, may have been bodily present all along; yet, if it is true that they are often to be detected after such boiling and sealing, then a doubt is thrown upon certain experiments—those of Pasteur, for instance,—justifying the serious distrust that has been expressed by Dr. Child and others, not of his manipulations, but of his microscopical examination of the products of these experiments.

The use of ferments to produce, or rather hasten, certain effects in otherwise suitable substances, may be an argument against the opinion which the writer is disposed to hold; and the opinion also appears contrary to our experience with respect to higher organisms. Yet, on the whole, we see no want of philosophy in believing that these very lowest forms of life, whether they are only animal constituents or animals themselves, may arise *de novo* out of suitable nitrogenous matter, without ova or germs of any kind, yet not, we imagine, from the operation of any physical agent or agents, as heat (though, of all physical agents, heat seems most correlative with life), but rather by a force, *sui generis*, advocated by the school of Hunter and, we think, unless we misunderstand him, by Dr. Beale amongst modern microscopists, though such a doctrine is far from popular. Further, we think that the advocates of the so-called *spontaneous generation* should not be set down as heterodox on that score, for they may think that such views necessitate something more than physical agents to act on organic matter in order to produce the manifestation of life; and though this may be every moment occurring, still it is *in the beginning*, if not in time, yet in animal existence at its very start—and, indeed, it is the view which the literalist might probably take of life—an aquatic genesis or *bringing forth*.

At present there may be no proof that these low organisms have any relation to the causation of general zymotic diseases—as, for instance, of Asiatic cholera. What we have said, however, respecting the *dejectamenta* in ordinary diarrhœa may be recollected. Whether microzoa are a cause or a product of disease, or whether their generation is noxious, or the reverse, may not be certain. We may mention a few experiments, if experiments they may be called, which we have occasionally tried. With respect to small-pox, we have found that glass slides, moistened or not with glycerine, placed in different positions in a ward which was rather crowded with small-pox patients at various stages of the disease, presented, upon examination under the microscope, irregular brownish scales, with granular matter attached to them, evidently from the diseased skin, also loose granules or molecules, and, of course, hairs, epithelium, and foreign matter. In such an instance the *materies morbi* must readily be inhaled by an attendant in a pretty substantial form. The breath of a patient with malignant scarlet fever was received and condensed on a slide, and when examined it presented some elongated monads or bacteria, evincing an evident spontaneous movement. Granular particles, answering to the small molecules found, as mentioned above, on the slide suspended above the decaying diabetic urine, seemed also to exist on glasses placed for a few hours over the skin in small-pox and scarlatina, and in the latter disease apparently in the renal and nasal secretions. Such atoms may be worthy or not of further notice; at any rate, the subject would require the examination of an adept furnished with the *best of instruments*. In two or three trials I could discern no trace of life in pus from diseased joints, &c.; whilst, on the contrary, the muco-purulent secretion from a patient with diseased bladder presented moving bacteria of a somewhat peculiar appearance. In a case of diphtheria the expectorated membrane exhibited a somewhat fibrous stroma, with oval corpuscles rather distant, but apparently regularly disposed in it; but in a long fibrous cast, lately brought up in a fatal case of the same disease, occurring in an adult, the structure was of a more granular appearance.

Stoke-upon-Trent, May, 1872.

THE TREATMENT OF SMALL-POX BY VACCINATION.

BY WILLIAM MARSHALL, M.D.

MANY times during the last five or six years I have had thoughts of sending a communication to THE LANCET, to draw attention to what seemed to me a positive fact—viz., that vaccination was not only preventive but also curative in small-pox. I delayed doing so under the idea that if this were really true, what with the amount of vaccinating and revaccinating that was going on in the country, the same thing must have been observed by many others, and surely would have been published in some of the medical journals; and now that Mr. Furley has drawn attention to it, I feel it my duty to write in corroboration.

In estimating the value of vaccination as a cure for small-pox, it is necessary to be acquainted with the course of that disease in all its varieties, and to bear in mind that its incubative stage is thirteen days; and that vaccination, as far as my observation goes, is a local disease until some time between the eighth and eleventh days; it is only then that the constitution becomes affected, and it is so from absorption of the lymph in the matured vesicles. I come to this conclusion from observing that a person exposed to the infection of small-pox within eight days after being vaccinated may take the disease; but no matter how much exposed after the eleventh day, he will not take it. Also, if a person who has been vaccinated be revaccinated within seven or eight days, the revaccination will take in some

modified way; but if done after the eleventh day, not at all. Hence, if an unvaccinated person who has been exposed to the infection of small-pox be vaccinated in time for the vesicles to rise, and the lymph to be absorbed before the symptoms of small-pox begin, he will either have no attack, or, what I think is more common, will have severe symptoms, ending with the appearance of a few spots, sometimes of none. But if the symptoms of small-pox commence before the vesicles have risen and begun to desiccate, he will have a severe attack, but modified in so far that there will be no secondary fever.

I shall not occupy space further than in giving the following history.

In a large family an unvaccinated child had small-pox and died. I only saw it when dying. I recommended all the others to be vaccinated. Four had been previously vaccinated; these were revaccinated; none of them took the disease. Three of the sons had never been vaccinated; one of them I vaccinated directly and satisfactorily, but just as the vesicles were desiccating, he showed symptoms of small-pox, and five spots appeared on his face, and a few on his body; he was not confined to bed a single day. The second on the very day he was vaccinated became ill with small-pox, and the third, who had never been vaccinated, was taken ill on the same day. Both of these had the disease severely, but the contrast between the two lying in the same room was most remarkable. In the second son the vaccination and the small-pox progressed, the one entirely unaffected by the other until the tenth day; the vaccine vesicles then desiccated and so did the small-pox ones, and the disease came to an end; he had *no secondary fever*, and was sitting up *quite well*, while his brother—the unvaccinated one—was lying in a high secondary fever, delirious, and battling for his life. These cases occurred six years ago, and this was the first instance I had seen of the curative effects of vaccine. Since then, however, I have seen many, and have always observed the same result, so that I think that I can have made no mistake. I was, therefore, much surprised a few weeks since to see in the summary of the trial of some of the "Peculiar People" for the manslaughter of two children who had died of small-pox without medical aid, &c., that a third, who had been vaccinated, had small-pox directly after and died of it. I should be very much pleased if the doctor who attended the case would publish details of it, especially with regard to the date of the onset of the symptoms of small-pox after the vaccination, the date of the death, and the cause of it.

The great objection to the use of vaccination in the cure of small-pox is the necessity, in my experience, of its being done within a day or two of the onset of the disease, otherwise the vesicles have not time to rise and affect the system in a curative manner; but Mr. Furley's plan of injecting a large quantity of lymph under the skin seems to be exactly what is necessary, and may be done with hopes of immediate benefit at any stage of the disease.

Mortlake, S.W., May, 1872.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SOFTENING OF THE BRAIN FOLLOWING SYPHILIS; DEATH.

(Under the care of Dr. BRISTOWE.)

F. W. B——, aged twenty-three, was admitted into hospital April 16th, 1872. He had syphilis in October last, followed by sore-throat and general psoriasis. He is not an intemperate man, and has enjoyed good health till two weeks ago, when he began to suffer from headache, loss of appetite, constant nausea, and was sick after nearly every meal.

He is a strong, well-nourished man. Has still some spots of psoriasis on the face and arms. Can walk, but feels giddy. Complains of pains in the back of the head and down the neck; the pains are worse at night; reading increases the headache. He has continual singing in the ears, chiefly the left. The whole of the scalp is somewhat tender. Pupils contracted, especially the right; they do not dilate to light; a strong light makes his eyes ache. Tongue thickly coated. Has no appetite; has been sick three times this morning. Throat not sore now. No tenderness of abdomen; bowels confined. No particular pain after food; vomiting comes on about ten minutes after he has taken food. Heart and lungs healthy. Urine 1027; no albumen. Temperature 99°.

April 20th.—Complains much of headache, which is worse at nights. Appears to see with both eyes. Says he sees black spots. Sclerotics and conjunctivæ of both eyes congested. Still sick.

25th.—This morning it was noticed that the left side of the body was paralysed, the tongue deviated to the left, and the left side of the face did not move in speaking. No complaint of pain. He cannot move his left leg or arm, but seems to retain perfect sensation in them. Reflex movements easily excited in the left leg. Still complains of headache. Sees well, and eyes move perfectly.

29th.—He is getting drowsy and comatose. Can just reply "yes" or "no" indistinctly. Tongue deviates to the left. Left side of the body quite paralysed. Has no power to move the right eye outwards or inwards; the up and down movements are much impaired. Bowels open after croton oil.

He died comatose on the 3rd of May.

At the post-mortem examination the membranes of the brain were found thickened, and an increase of fluid at the base. There was marked thickening of the right posterior cerebral artery, which was surrounded by reddish fluid, evidently the result of inflammatory action. The interior of the artery for one inch of its length was occupied by a cylinder of adherent fibrine. There was softening of the anterior part of the left optic thalamus, extending down into the crus cerebri of that side. Another patch of softening was found in the outer wall of the right lateral ventricle at its posterior part. All the other organs were tolerably healthy.

TUBERCULAR MENINGITIS; DEATH.

(Under the care of Dr. MURCHISON.)

W. G——, aged twenty-nine, was admitted April 12th, 1872, in an almost unconscious state. He is said to have been "out of sorts" for the last month, and has had much to worry him lately. He had taken very little food for the last week. He has made no complaint of headache. No family history of phthisis. On Sunday afternoon, the 7th, he was found lying on the floor insensible. He appeared to be paralysed; he could not speak, only making noises at intervals. Up to this time he had been going about as usual. He had been sick several times on this day, and had been unable to eat any dinner. He is said to have remained in much the same state of insensibility since Sunday.

On admission, at 8.30 P.M., he could move all his limbs, but the left side seemed weaker. He lies in bed moving restlessly, throwing his arms about, and apparently clutching at imaginary objects. He does not answer articulately, but mutters slightly. At times he seems to understand what is said; puts out his tongue when sharply spoken to. Conjunctiva congested; pulse 132; respiration 60; temperature 102·4°. Tongue dry, furred, protruded straight. No pneumonia detected. Right pupil sensitive to light, probably natural; the left, on sudden exposure, first contracts, and then expands and remains dilated. He was ordered a dose of croton oil and chloral.

April 13th.—Temperature 100·8°; pulse 128; bowels freely opened. He was much quieter after the chloral, but did not sleep. Appears to understand better; tongue brown, furred; can move both legs and arms; cannot give the left hand, but grasps fairly with it; pupils small, equal, sensitive; right eye much inflamed; cannot talk; heart-sounds healthy; no headache; evacuations passed under him; hands restless, but not tremulous; there is no strabismus, facial paralysis, or deviation of the tongue; no vomiting; no appearance of discharge from the ears; he is very restless, constantly clutching at the bedclothes. There

is marked tenderness on pressure over the upper cervical spines, but none over the head. He died, exhausted, the next day.

Post-mortem examination.—In the upper lobe of the right lung, near the apex, was an indurated fibroid mass the size of a walnut, with caseous softening in the centre; scattered through the lung a few small irregular masses. A similar mass was found in the upper lobe of the left lung. Bronchial glands crumbling, caseous, almost chalky. The brain weighed 2 lb. 14 oz. The veins on the surface were congested. The ventricles contained much clear serum. Membranes at base much congested. Along the fissure of Sylvius, on both sides, there were distinct tubercular nodules in abundance. In the grey matter adjacent to the right Sylvian fissure was a small abscess the size of a pea. On the under surface of the right anterior lobe, close to the median fissure, was a small extravasation of blood. The other organs were natural.

WEST LONDON HOSPITAL.

RETENTION OF URINE FROM STRICTURE; EXTRAVASATION; RECOVERY.

(Under the care of Mr. TEEVAN.)

R. R——, aged twenty-nine, a groom, was admitted into the hospital on April 13th, 1872, with extravasation of urine. Two years ago the patient contracted his first and only attack of gonorrhœa, for which he had no treatment whatever. In four months it began to decline, and was succeeded by a gleet which lasted for many months. One year ago he began to suffer much pain in urinating, and noticed that the stream of urine became very fine and twisted. His health now declined, and he lost flesh. Three weeks ago the perineum commenced to swell, with much pain, attended with shivering fits. Two days before admission the penis became very œdematous.

When admitted, the face was ghastly, cheeks hollow, and eyes sunk. Patient tremulous, and sweating profusely; pulse 150, and very feeble. Hypogastric region full, and dull on percussion. Penis semi-erect from œdema; perineum greatly swollen, indurated, and of a dark-purplish colour, limited behind by a line drawn from one tuberosity of the ischium to the other, but extending forwards on to the abdomen.

Mr. Teevan made an incision three inches long in the median line of the perineum, and from the wound there escaped some urine, followed by pure pus and some gangrenous shreds of tissue. The penis was also punctured in several places.

On the 4th of April urine passed freely through the wound, and some came by the penis. The cellulitis had extended upwards on each side to the crest of the ilium. On the next day Mr. Bridgman made free incisions into the penis and skin in each flank. He found that the temperature, which had been gradually increasing since the patient's admission, had to-day reached 104°. On the 8th, two large collections of pus in each flank were opened, as also an abscess in the abdominal wall. From this date the patient began to improve, the temperature descending till it reached 98·8° on the 16th. On April 27th Mr. Bridgman began to dilate the stricture with the smallest French bougies; and by May 18th he had got up to No. 14, when the patient left the hospital quite well, a little urine still coming through the wound for one week afterwards.

Mr. Teevan observed that the case illustrated the course and sequelæ of a gonorrhœa unchecked by any treatment whatsoever. When the patient was admitted, one of the finest filiform bougies was with ease passed into the bladder, after a vain attempt to introduce the smallest metallic catheter, to demonstrate the fact that the former would often succeed where the latter failed through its greater calibre. Now, inasmuch as the final cause of retention from stricture was the blocking up of the passage by a plug of mucus, it followed that cases could be successfully treated by the simple introduction of a bougie where the smallest catheter had failed to effect the desired object. Finally, it was only in cases similar to the present, where the urine was pent up and unable to escape, that it could do any harm. Infiltration of urine after lithotomy was a physical impossibility.

GREAT NORTHERN HOSPITAL.

EXCISION OF THE HIP-JOINT.

(Under the care of Mr. GAY.)

WE continue this week the record of the cases of excision of the hip-joint, two of which appeared in our last issue.

3. W. R——, aged twenty-seven, admitted into hospital Jan. 20th, 1872, with Pott's curvature and contracted lower extremities. He had been quite healthy and active till four years ago, when he noticed a small painless prominence of the spine in the dorsal region: soon after this he felt great fatigue on walking about, and was advised by a surgeon to rest as much as possible. In May, 1868, he attended the Orthopædic Hospital, and wore an instrument for the support of the spine for four months with advantage. In August of the same year he noticed he was losing power over the lower limbs, and shortly after perceived that sensation was diminished. By the beginning of October he had completely lost both power of motion and sensation, and was quite laid up. He now felt darting pains, like the stab of a knife, in the loins and abdomen, which continued three weeks. He remained paralysed for about twelve months. Six months after confinement to bed he had, on one occasion only, retention of urine, which was drawn off by catheter. About the same time he could scarcely retain his motions if the bowels were at all relaxed. He also had a bed-sore. In October, 1869, power and sensation began to return, and by July, 1870, he could walk unaided across the room. In January, 1871, he noticed a hardness in the left groin, and the thigh became a little flexed, so that he limped in walking; this increased and he was obliged to keep his bed. In March, extension from the knee was tried, but it caused so much pain that it was discontinued. By May, both thighs had become greatly contracted.

State on admission.—He is a strumous-looking and very anæmic man, with double angular curvature of spine, one involving the sixth, seventh, and eighth dorsal vertebræ, and the other the lower part of lumbar region. Apparently no disease is now going on in the spine; the left thigh is flexed at right angles to pelvis, and considerably adducted. Slight flexion and extension can be made without causing pain; but there is great pain if the thigh is abducted, or the trochanter pressed upon; the ham-strings and flexors of left thigh very rigid; the great trochanter is very prominent; high up, and to its inner side, in the region of the ischiatic notch, what appears to be the head of the femur can be felt. When the thigh is moved distinct grating is felt.

As the patient was a great sufferer, and his case was evidently hopeless unless relief could be obtained by operation, on February 28th Mr. Gay excised the head, neck, and great trochanter of the femur, all of which, as also the acetabulum, were in a very carious condition; the latter was freely gouged, and two large abscesses were laid open. The wound was freely washed out with strong sulphurous acid, and the edges brought together with silver sutures. A pad of lint was then strapped over and secured by bandages. The origin of the adductor longus was divided subcutaneously. In the trochanter was a large carious cavity containing a small sequestrum.

The patient after taking two grains of opium had some sleep, and on the following day little pain. He went on well till March 4th, his appetite improving. The wound began to suppurate freely, and a bed-sore formed on the lower of the two spinal curvatures. On the evening of the 6th he had a severe rigor. The discharge from the wound ceased, and the parts around became very red. The patient gradually sank, and died on March 15th. No post-mortem allowed.

WORKHOUSE HOSPITAL, MANCHESTER.

EXOPHTHALMIC GOITRE; UNUSUAL SEVERITY OF SYMPTOMS; ULCER OF CORNEA; CURED.

(Under the care of Mr. WILLIAM A. PATCHETT.)

EMILY W——, aged twenty-seven, servant, unmarried, admitted March 1st, 1871. For the last five or six years she says she has been accustomed to very hard work, involving much loss of rest. Catamenia appeared at fifteen, have

generally been scanty and irregular, and for two years have been completely stopped. Five years ago, after a severe day's exertion, she was suddenly seized with violent "throbbing" at the heart, pain, and dizziness in the head, which remained a few minutes and then disappeared. A few weeks afterwards the palpitation returned, and she has been troubled with it ever since—the least over-exertion or any excitement bringing on an attack. Two years ago her friends remarked that her eyes looked prominent, and that she had a very staring appearance. She also noticed that there was a fulness on the right side of the neck. From this time the eyes became more and more prominent, the swelling in the throat larger, and the palpitation more frequent. Two months ago the eyes became so painful and tender that she could not bear the light, and in consequence had to leave her situation.

State on admission.—Is very excited, pale, and emaciated; the eyeballs considerably protruded, the insertion of the recti muscles being visible; conjunctivæ highly injected. There is a small ulcer of right cornea, just as if punched out. Eyes are exceedingly sensitive and painful; cannot bear the light, and as the eyelids do not cover the eyes by ¼ in. she is obliged to wear a covering over them. Both eyeballs are equally prominent. By pressure with fingers on eyelids, which causes very great pain, the protrusion can be much diminished, but it returns on the removal of the pressure. When the eyes are uncovered she has a wild staring look. Heart's impulse is strong and frequent, and diffused over a wide space. The superficial cardiac dulness measures 5 in. across, deep cardiac dulness 6 in. by 4½ in. A loud blowing systolic murmur is heard over the base, also along the carotids, and over the axillary and brachial arteries a bruit is heard. There is a venous hum over the jugulars; pulse 120, weak. The thyroid gland is very prominent, the enlargement being confined to the right lobe; left lobe is not visibly enlarged, but a fulness can be felt over it. Complains of having very restless nights; both legs œdematous; urine free from albumen.

She was placed on generous diet, with two eggs and a pint of beef-tea daily, and ordered three-grain doses of valerinate of iron (in pill) three times a day. The ulcer of cornea to be painted twice a day with a solution of nitrate of silver, four grains to the ounce.

This was a typical case of Graves' disease, the three characteristic symptoms, exophthalmos, goitre, and excited heart, being so well marked. The patient remained in hospital fourteen weeks, and was discharged June 7th, 1871, perfectly cured. For the first two weeks there was very little alteration in the state of the patient. She had frequently most violent attacks of palpitation and breathlessness, and during these attacks the protrusion of the eyeballs was so great that she thought they would fall out of their "sockets." The notes of her daily progress are too lengthy to reproduce, but the intensity of the symptoms gradually abated. At the time of her discharge the thyroid enlargement had entirely disappeared, the condition of the eyes was perfectly normal, the heart's action quiet, and the sounds unassociated with any murmur. What is most extraordinary in this case is, that the cardiac dulness, which on admission measured 5 in. across, on her discharge measured only 3 in. by 2¼ in. The occurrence of ulcer of cornea is also interesting, and must be rare, as Trousseau says he never saw it occur in Graves' disease. This woman is now (April, 1872) quite well and strong.

BALTIMORE (U.S.A.) EYE AND EAR INFIRMARY.

ACCIDENTAL IRIDEREMIA; OR, COMPLETE REMOVAL OF THE IRIS BY THE FINGER-NAIL OF AN ANTAGONIST.

(Under the care of Dr. JULIAN J. CHISOLM)

J. M——, aged thirty-seven, presented himself for treatment, suffering from chronic inflammation of the left cornea, with loss of transparency. Attention was attracted by the striking contrast which his two eyes exhibited. The left eye, for which he desired treatment, was of a light-blue colour, whilst the entire corneal portion of the right eye was of a black colour, with the exception of a white triangular scar, 1½ lines wide at its base, which rested upon the lower edge of the cornea, with apex extending up to the central pupillary region. To a casual observer the right eye presented the appearance of an old and severe injury, with anterior chamber filled with blood blackened by long exposure. Dr. Chisolm, however, was surprised, on throwing the light from an ophthalmoscopic mirror upon this black eye, to find it brighten with the true red reflex of a healthy choroidal fundus. The use of the objective lens indicated transparent media and a normal disc. Upon inquiry this black unpromising eye proved to be his good one, whilst the normal-looking one had had its usefulness much marred by the haziness of its cornea.

He furnished the following history of himself:—Formerly his eyes were both blue and strong, until three years since, when he came out of a fight with one eye black as it appears at present. During the fight his antagonist had gouged him in the right eye. Under excitement he suffered no pain, and was not aware at the time that his eye had been injured. The next day he discovered the change of colour of his eye, and detected a shred protruding from a cut in the front of the eyeball. After one or two days this fragment, which was hanging out, came away, leaving a white scar over the sight. No severe inflammation had followed upon the injury, and so little inconvenience was experienced that he did not lose a day's work, nor did he think it necessary to seek professional advice. A little cold water was the only local application used. Until the left eye became inflamed, one month since, both eyes had been in constant service, and were believed to be equally good.

A careful ophthalmoscopic examination revealed no trace of iris. When the thrust of the finger had driven the nail through the cornea, it had in some inexplicable manner entered the pupillary opening, and, passing between the capsule of the lens and the iris, had thrust this latter membrane against the inner face of the cornea. Then, acting as a hook, the nail had drawn the iris out of the wound, separating this membrane from the ciliary ligament, the surface of adhesion being weaker than the cohesion of iritic structure. The final escape of the protruding iris had been effected by the continued drawing action of the ever-winking lids. The finger-nail had in no way injured the lens, nor the accommodation of the eye. Although the corneal scar contained between two descending radii involved about one-tenth of the surface of the cornea, light could freely pass around this obstacle and make an image upon the fovea centralis retinæ. With Jaeger's test-types he could read No. 1 at four inches, and No. 20 at eight feet. With the optometer and a 10-inch convex lens, his range of accommodation for brilliant type was *pr* 1·5½, *pp* ½.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 21ST, 1872.

MR. JOHN HILTON, F.R.S., PRESIDENT, IN THE CHAIR.

THE following reports from the Morbid Growths Committee were read:—On Mr. Tay's case of Tumour of the Ilium, by Dr. Bristowe — said to be a lymphadenoma; on Mr. Norton's Tumour of the Femur, an osteo-sarcoma; on Mr. Cooper Forster's Tumour of the Breast, a fibroma; on Mr. Croft's case of Tumour of the Tibia and Femur, by Mr. Hulke; on Dr. Squire's case of Cancer of the Breast recurring after its removal by caustics, by Mr. Arnott; and on Dr. Crisp's case of Lardaceous Kidney.

Dr. SANDERSON then exhibited some microscopical preparations confirming his views expressed at the last meeting of the Society.

Mr. WOOD showed the Pelvis and Genital Organs of an adult Hermaphrodite. The individual had passed as a female for sixty years; had been married, but her husband deserted her. She died in a workhouse. Height 5 ft. 9 in.; appearance feminine; mammæ womanlike, well-developed, nipples prominent; breasts weighed 2¾ lb. and 2½ lb. respectively. Pelvis broad; all transverse diameters feminine; the antero-posterior diameter, the depth, and outlet, were masculine; labia majora large; each contained a full-sized testicle, with the usual coverings; the cremaster muscle and epididymis

perfect; in the mid-line a clitoris, or penis, terminating in the labia minora; half an inch below, and one inch in diameter, a cul-de-sac—a vagina,—two inches deep, passing between the rectum and a well-developed prostate. Vas deferens present, and vesiculæ seminales well-developed. He considered the individual was a male, with well-pronounced hypospadias.

Dr. WILKS said that when the testes are not developed the individual assumes the feminine character; that testes in the groin are of no use as sexual organs, and he could not understand why individuals with undeveloped testes should be called males.

Mr. HULKE asked if the cul-de-sac was congenital, or an acquired tube through coitus.

Mr. WOOD said that the testes were developed and normal; the penis was undeveloped, but very little of the history was known. In reply to a question from the President, he said that he had not examined for spermatozoa.

Dr. CRISP exhibited specimens of Tubercle in Fowls, produced by inoculating them with lymph from a vaccine pustule ten days old.

Mr. HOLMES showed a good specimen of Melanosis of the Penis. The disease extended down the urethra; no glands in the groin enlarged. The patient recovered. He showed also a Tumour of the Scalp, which he thought illustrated the disease described by M. Chassaignac as sebaceous tumour of the scalp ulcerating. The patient was an elderly man, and the tumour had been removed some time ago by the écraseur. It never healed, but ulcerated, and resembled an epithelioma. The man died of pyæmia. From microscopical examination he thought it an epithelioma ulcerating, not a sebaceous tumour, and wished it referred to the Morbid Growths Committee.

The PRESIDENT said the specimen of melanosis of the penis was very rare. He had never seen one before.

Mr. GAY mentioned a family who suffered from sebaceous tumours, and from whom he removed many. From one of the sons he failed completely to remove one situated over a dorsal vertebra, as it was attached to the bone. It ulcerated and spread, and nothing for a time seemed to stop it.

Mr. GAY showed a Cyst removed from the neck of a lady aged fifty. It looked like a sebaceous cyst, but on examination it was found not to have the usual contents of such cysts; it contained cholesterine, oil-globules, a large quantity of tyrosine, with abundance of epithelial cells, but no stroma.

Mr. GAY then showed a Sequestrum he had removed from a tibia. Fourteen years ago the man broke his leg; union took place; since then he had had pain in the leg, then an abscess formed and broke; he trephined and removed the sequestrum. The case was interesting for the time it had remained there. In reply to the President, he said the sequestrum was removed from the exact seat of the fracture.

Dr. CRISP showed a Diseased Cerebellum from a patient of Mr. Paddon's. A woman aged forty-five, who had been quite well till one year ago, suffered from severe paroxysms of pain in the occiput and neck, and in one of these she died. At the autopsy the calvaria was found to be thickened, the grooves for the meningeal arteries contracted, membranes healthy; no lymph, but much serous fluid escaped; the cerebrum healthy; the under surface of cerebellum entering into fourth ventricle was soft and diffluent. The floor of the fourth ventricle was healthy, and so were the corpora striata and optic thalami. The arteries were plugged with lymph, probably a case of softening.

Dr. BARNES asked if the woman had lately had children, as osteophytes occur during pregnancy, in the course of the meningeal arteries, passing away afterwards; but they may be permanent, as Rokitansky shows.

Mr. PADDON said she had had no children for twenty-three or twenty-four years.

Dr. CRISP then brought forward a case of Intussusception of the Colon and part of the Ileum into the Colon, in a child eight weeks old, which had been caused, he thought, through the administration of a large dose of grey powder; all the symptoms were present, but the bowel could not be felt through the rectum. At the autopsy he had great difficulty in withdrawing the invaginated intestine. There was no peritoneal inflammation, and no adhesions of the intestines. He wanted to open the abdomen during life; had he done so would he have had difficulty in replacing the bowel?

Mr. HUTCHINSON asked how the difficulty arose if there were no adhesions; he mentioned a case somewhat similar where he opened the abdomen and easily drew out the invaginated bowel. The child recovered.

The PRESIDENT suggested that success might depend upon the method of traction.

Mr. ARNOTT showed specimens of Multiple Exostosis; the growths were found on the bones of both extremities, on the pelvis, on each rib, and on the sides of the vertebræ, varying in size from a pin's head to a large nut. The specimens were taken from a girl aged eighteen, who died of erysipelas after one the size of a walnut had been removed from the inner side of the femur, near the knee-joint. These cases are rare. They are said by Billroth to be outgrowths of the epiphysial cartilage which ossify; but not so, for they are met with on the shafts of bones, apart from the epiphysis, and also on the anterior extremities of the ribs. Then those near the knee-joint are said to be covered with a bursa communicating with the joint, hence the danger of operating.

Mr. T. SMITH asked if the patient was rickety; he did not think cases were so uncommon.

Mr. HOLMES said cases were not so very rare. He questioned the desirability of operating, as he had seen fatal results; they usually cease to grow after attaining a certain size, and if the tumour does not interfere with the movements of parts, there is no need to interfere. He knew nothing of the bursa over those near the knee-joint; they are covered with synovial membrane from the knee.

Mr. HUTCHINSON said that from long experience he had come to the same conclusion, and will never remove one from a long bone unless it causes the patient great inconvenience. They grow apart from the epiphysial line. He referred to specimens showing it in the museums of Berlin and Vienna. After a time their growth is arrested.

Mr. HULKE said he had not had bad results in operating. When he removed one from the neighbourhood of the knee-joint, he took precautions to prevent inflammation. He should only operate when it gave great inconvenience.

Mr. DE MORGAN and Mr. WOOD said they had both seen good results after operating.

Mr. ARNOTT said there was no rickets in the case. He should not have operated but for the inconvenience the growth gave the patient; and his colleagues urged him to do so.

Mr. W. ADAMS showed an Exostosis removed from the condyle of the femur. He agreed with the remarks previously made as to operating, but in this case the growth interfered with the movements of the joint, and, pressing into the popliteal space, gave great pain. He removed it subcutaneously. The patient, a boy aged fourteen, is doing well.

Mr. SUTTON TOWNSEND showed a Heart with a bony growth at the left apex the size of half an egg. On sawing it through, a cavity was found containing clots of blood, and communicating with the left ventricle; it was a cured aneurism.

Mr. S. WILKINSON showed a specimen of Malignant Disease of the Eyeball and Brain from a child aged three. He removed the eyeball; the growth recurred, and filled the orbital cavity; and then tumours appeared on the scalp and forehead. The child died of convulsions.

Mr. W. ADAMS exhibited the Legs and Feet of a Club-footed Child. He had operated nine months ago. The preparation showed the cut ends of the tendons united with three-quarters of an inch of new tissue. The child had died of diphtheria. This was the thirteenth dissection he had made of tenotomised tendons, and always found the same.

THE RIBERI PRIZE.—Subject: "On Nervous Diseases in General, or on any particular Nervous Complaint." 1. The essays must be written (very plainly) or printed either in Italian, Latin, or French. 2. Printed works must have been published within the years 1871, 1872, or 1873, and two copies should be sent post free. Manuscripts or printed essays must reach the Academy of Medicine of Turin on or before December 31st, 1873, in the manner generally in use for competitive essays.

Reviews and Notices of Books.

Air and Rain: the beginnings of a Chemical Climatology. By R. ANGUS SMITH, F.R.S. pp. 600. London: Longmans.

[SECOND NOTICE.]

THE amount of carbonic acid affords on the whole the most reliable test as to the sufficiency of the ventilation. We avoid an atmosphere containing 0·1 per cent. of carbonic acid. Experience proves that such an atmosphere is not only odious but unwholesome. Good ventilation in dwelling houses means air with less than 0·07 of carbonic acid. London always comes out well in air analyses. The quantity of carbonic acid in the air of Hyde-park was ·0334; in Smithfield, ·0428. In the workhouses, with 500 cubic feet per inmate, the mean of the day was ·056; and of the night, ·0777. It was only ·046 in the best ventilated wards in Chelsea, Homerton, and Lambeth. It was nearly the same in the wards of St. Thomas's Hospital; but in the hospitals of Madrid the quantity was from 0·27 to 0·43 per cent. We must refer our readers to Dr. Smith's work for most interesting experiments in a closed chamber on the effect of moisture, candle-burning, respiration, &c., on the purity of the air, the production of light, &c. One or two conclusions are of very great importance. Thus, production of light and heat is greatly retarded by the presence of carbonic acid and moisture, and the purity of the air may be estimated by the rate at which a candle is consumed. There is a loss of 10 per cent. of light for every ·22 per cent. of carbonic acid in the air. A sudden fall of dew purifies the air by washing out the organic matter. May not this be a source of malaria; for it is obviously difficult to explain the origin of intermittent fever on the dry plains of India on the same principle as those arising in the fens of Lincolnshire. The bad effects of small quantities of carbonic acid, or, in other words, defective ventilation, are very remarkable; they commence as soon as the amount of carbonic acid reaches 0·4 per cent.—indeed, some effect was occasionally seen when it was 0·2 per cent. The number of respirations rises, and the pulse, at first irregular, at length falls to 55, and becomes so weak that it is difficult to find. When the air very gradually deteriorates, nothing very striking is observed—the senses fail to guide us. But if we look at the important total acts—circulation and aeration of the blood,—we find that death has begun, so to speak, and the life goes out as quietly as the candle. The conclusion is that the smallest diminution of oxygen in the air breathed affects animal life if its place is supplied by carbonic acid.

Dr. Smith thinks that we can tolerate impure air at night, and that the oxygen may, with propriety, be diminished during sleep to the extent of two parts in ten thousand. He is of opinion we cannot so well bear ventilation at night, and hence it is that temperature is universally held to be the measure of ventilation. We venture to protest against these conclusions. The respiration will be more safely regulated by the nervous system than by any artificial condition of the atmosphere. Close bed-rooms are only made less unwholesome by the condensation of the moisture of the breath on the cold surfaces. With regard to the artificial purification of the air by water-jets, lime-water, &c., there is no uncertainty; by such means the air is purified. A candle burns better, and the air is rendered more pleasant to breathe.

As it is impossible in this place to do justice to this monument of patient scientific labour, we can only recommend its perusal by all who feel interested in the extracts we have given. We believe, however, that we shall consult the wishes of our readers by discussing, from time to time, some of the many questions the volume contains.

A History of Medicine from the Earliest Ages to the Commencement of the Nineteenth Century. By ROBLEY DUNGLISON, M.D., LL.D., late Professor of the Institutes of Medicine in the Jefferson Medical College of Philadelphia, &c. Arranged and edited by RICHARD J. DUNGLISON, M.D. Philadelphia: Lindsay and Blakiston. 1872.

CONDENSED and fluent, this history, or rather narrative, of the development of the healing art will be read with profit by many and with pleasure by all. Within the compass of little more than 250 pages, it can hardly be expected that Dr. Dunglison could do more than touch lightly on the *summa vestigia* of his theme; yet he has performed this feat so dexterously that no *vestigium* of importance has been omitted; though it is rather to be regretted that he has stopped at the very point where his narrative had culminated in interest, and has left the reader on the threshold of the nineteenth century.

The master-work of Sprengel—the Geschichte der Arzneikunde—has supplied Dr. Dunglison with accurate details as to ancient medicine; while he has been left to glean from multifarious sources the medical history of the middle ages, the renaissance, and the subsequent centuries. Accordingly we prefer the first portion to the second, as being more compactly put together and written with a firmer hand. Dr. Dunglison was a good classical scholar—witness his excellent dictionary of medico-scientific terms, with their etymology and history—and he therefore draws with discrimination on the materials lying ready to his hand. Perhaps the most interesting of the ancient sections is that on Egyptian medicine, from which the advocate of modern specialism will find that in that country there was a particular physician for each disease: "one occupying himself with diseases of the eyes, a second with affections of the teeth, a third with those of the stomach," &c.

The weakest part of this portion is that relating to Hindoo medicine, where the reader will look in vain for such interesting facts as that recorded in THE LANCET for July 1st, 1871, where the discovery of the saccharine element in diabetic urine is traced (far beyond Willis) to Susruta, who probably lived in the fifth or sixth century of our era. Dr. Dunglison is very good on Hippocrates and his school, on Galen, on Celsus, and on Aretæus—the last of whom he justly commends as the most judicious in practice of the ancient physicians, and as a writer estimable for the luminous terseness of his language. To the present generation of medical students (from whom Mr. Lowe would withdraw even the scantling of Greek hitherto vouchsafed to them) we particularly recommend the ancient section of Dr. Dunglison's work.

The modern section is out of all proportion meagre and jejune. But this is less to be regretted as from such easily accessible works as Hecker's "Epidemics of the Middle Ages" and Mr. Guy's "Lectures on the Public Health" the student can readily obtain what Dr. Dunglison withholds. The volume, we may add, is convenient in size and admirably printed, though the editor might have exercised a closer supervision over the orthography. "Æmylius Paulus," "Eriistratus," an "areola of light" when "aureole" is meant, being specimens of a numerous family of monstrosities. The Greek, too, is badly accentuated. Better leave the accents out altogether than have them (as Lord Jeffrey once said of a writer's commas) "dusted over the page as if out of a pepper-box."

OUR LIBRARY TABLE.

The Microscopic Dictionary. By J. W. GRIFFITH and ARTHUR HENFREY. Third Edition, edited by J. W. GRIFFITH, assisted by the Rev. M. J. BERKELEY, M.A., and T. RUPERT JONES. Parts 3, 4, 5, 6, 7. London: Van Voorst. 1872.—This

valuable work is being published with commendable regularity. Part 7 extends to "Confervoideæ." The plan is so well known that it is almost unnecessary to give an example. We select one just to show how much may be compressed in a few lines:—APPENDICULARIA—Cham. A genus of Mollusca of the order Tunicata and family Salpidæ. 1. British species. A. flagellina. Bibliog.: Gosse, Mar. Zool. i., p. 37. Chamisso, Nov. Act. Acad. Cur., x. Huxley, Phil. Trans., 1851, p. 595." This is just what is wanted, and no more. Occasionally the information is less complete. Thus, under the head of Aphrodite we only find this taxonomic character: "A genus of Annulata"; though the character and appearance of the animal are otherwise well given. In the Tabular View of the Animal Kingdom the Cetacea should have been subdivided into Sirenia and the Cetacea proper, the Pachydermata into Proboscideæ and Ungulata. The Hyracoidea are also now generally regarded as constituting a distinct order. In the article on Blood neither the amœboid movements of the white corpuscles nor the action of solutions of magenta upon the red are so much as alluded to, though these are properly subjects of microscopical investigation, and we notice that kindred points, as the action of alcohol, tannic acid, &c., and the phenomena of coagulation, are described. The omission may, perhaps, be hereafter filled up under the term "Corpuscle," or "White Corpuscle." In the bibliography to the article Bone no reference is made to Dr. Sharpey's account, contained in the introduction to Quain and Sharpey's Anatomy, though this is very accessible, and is certainly the best account in the language of this tissue. We do not make these observations with the intention of decrying the work, for it is certainly a very valuable aid to the student, and a capital work of reference, especially upon the lower groups of plants and animals with which two at least of the editors' names are so intimately associated. The plates are excellent.

The Journal of Psychological Medicine. April, 1872. No. 2, Vol. VI. Edited by W. A. HAMMOND, M.D. New York: Appleton and Co.—This number contains—1. A sketch of the "*Hamlet* of Edwin Booth," by Dr. A. O. Kellogg. Booth is an actor of great celebrity in America at the present time, and appears to have both mental and physical endowments especially adapted for the representation of the character of *Hamlet*. 2. Dr. Dunster translates an article on the General Paralysis of the Insane, by Dr. Foville, originally contained in the "Annales Medico-Psychologiques." It was awarded the Civrieux Prize in 1869. 3. Dr. T. K. Cruse gives a new definition of insanity—to wit, that it is the "psychic manifestation of brain disease." In a note Dr. Hammond suggests the addition of the words "unattended by loss of consciousness," on the ground that a man insensible from the effects of cerebral hæmorrhage exhibits psychic manifestation of brain disease, but yet is certainly not insane. 4. On the Pathogeny of the Infarctions or Congested Patches which follow Embolism, by John Mason. 5. A Case of Diffused Cerebral Sclerosis, by Henry Baldwin.

On Pulmonary Consumption. By R. DOUGLAS POWELL, M.D. London: H. K. Lewis.—Dr. Powell enumerates the principal varieties of phthisis pulmonalis, and endeavours to delineate the connexion between the morbid lesions of consumption and the clinical symptoms observable. At the end of the book is a useful table showing the anatomical characters of the different forms of the disease. Although there is nothing strikingly novel in the work, it may be considered to contain a sufficiently good nucleus around which to gather and arrange matter for an enlarged edition.

Our Poor-law System; what it is and what it ought to be. By W. H. P. London: Kirby and Endean.—Although there is nothing very novel in this pamphlet, it contains an interesting *résumé* of the cardinal defects of our Poor-law system, and, with some exceptions, it lays down sound principles of reform. The writer has not made himself fully acquainted with the great work carried on by the Charity Organisation Society, and in the pressure of public business there is no hope whatever that the subject will be brought before Parliament this session.

New Invention.

ALPINE PORTE-KNAPSACK.

MR. WHITE has forwarded to us a new knapsack, which is intended to obviate not only the discomfort but also the unwholesome effects of those generally in use. Many of our readers, we hope most of them, are or have been familiar with the wearisome drag upon the shoulders, the oppression upon the chest, and the ill-distributed weight which are inseparable from the use of the old knapsacks. Many a pleasant walk is spoiled by these discomforts, and by the saturation of the back by the confined perspiration. Not only so; these drawbacks threaten more than our comfort, they tend to prove injurious even to health. A large cold poultice between the shoulders is not a wholesome thing for a tired pedestrian, sitting down perhaps in a draughty room; and the confinement of the chest by straps and bands during hard exercise is known certainly to lead, in not a few cases, to real injury. We have put Mr. White's knapsack, heavily laden, to actual test for a short distance, and found it singularly free from the faults we have described. The weight is well distributed, the chest is freed, and the back is ventilated. The knapsack itself, as well as the frame, is light and of good workmanship. We can unhesitatingly recommend Mr. White's knapsack and frame for the large majority of pedestrians. How far the needful gear will stand very rough work remains to be seen, and the outward position of the weight might, in difficult places, prove somewhat dangerous to the foothold, but some provision might be made for a closer bracing at such times.

The knapsack may be obtained of Mr. Price, 33, Great Marylebone-street, W.

VOLUNTEER MEDICAL OFFICERS.

WE are requested to make it known that a meeting of Volunteer surgeons will be held at the Grosvenor Hotel, Victoria Station, London, on Thursday afternoon, the 20th of June, at 4 o'clock; Spencer Smith, Esq., Surgeon Civil Service Volunteers, in the chair, to consider the following and other important clauses in the new regulations for the auxiliary forces.

"CLAUSE 43. *Medical Attendance.* The surgeon will attend the adjutant and his family professionally, and will receive an allowance of 2*d.* per week for each person for attendance and medicine. The word family will include wife, unmarried daughters, and sons under sixteen. The medical officer of the corps to which a drill instructor is attached will receive a similar allowance for attendance upon, and medicines for, such drill instructor and family. The word 'family' in this case will include wife and children under sixteen."

Volunteer surgeons are earnestly requested to attend. Communications on this subject may be addressed to Dr. John Murray, Hon. Sec., Volunteer Medical Association, 40, Bryanston-street, London, W.

THE annual festival in aid of King's College Hospital was held last week; Major Sir H. C. B. Daubeney in the chair. The report showed that, during the past year, 1540 in-patients and 32,460 out patients had been treated. In the course of the evening subscriptions amounting to over £400 were announced.

THE LANCET.

LONDON: SATURDAY, JUNE 15, 1872.

THE paper by Sir WM. GULL and Dr. SUTTON, reported in our last number, deserves notice as possibly marking a real advance. It has long been known that granular degeneration of the kidney is associated with changes in the vascular system. BRIGHT recognised hypertrophy of the heart as a result of renal disease, and knew also that the arteries of diseased kidneys were sometimes abnormally thickened. Subsequent observations have shown that arterial deterioration of one sort or another is widely associated with renal change. The infiltrating matter of lardaceous disease makes an early appearance in connexion with the coats of the smaller arteries, thence spreading into the neighbouring tissues. And granular degeneration, as distinguished from the other types of renal disorder, has a baleful association with vascular decay. Arterial degeneration and consequent hæmorrhagic accidents have been already shown to belong especially to this form of disease.

So far we are treading on undisputed ground. Passing thence to the territory of the recent discussion, we may first limit our glance to the kidney itself, within whose narrow bounds two rival pathologies contend. Dr. GEORGE JOHNSON long ago described the granular kidney as the result of "chronic desquamative nephritis," attended with a crumbling away of the epithelium and consequent falling together of the rest of the gland. The crumbling, however, as a morbid process, eluded the search of other pathologists, and those who walked by sight and not by faith were still in doubt as to the mechanism of the granular kidney. According to the antagonistic view, which was propounded by Dr. DICKINSON, the granulation is caused by changes, not in, but between the tubes; a new growth of fibroid tissue in this situation encroaching upon the glandular elements, contracting like a cicatrix, and drawing down the surface at its points of attachment after the manner in which cirrhosis of the liver is produced.

Distant and scattered arteries next send back the echoes of battle. Dr. JOHNSON drew attention to the fact that in connexion with chronic Bright's disease there is a general thickening of the walls of the smaller arteries. This thickening he regarded as a muscular hypertrophy; and proceeded to elaborate its pathology in ingenious harmony with his views as to the action of the pulmonary blood-vessels in cholera. According to this view the arteries become hypertrophied in their efforts to oppose the action of the heart, while the heart becomes hypertrophied in its attempts to overcome the opposition of the arteries. The kingdom is divided against itself, and an internecine war rages on every stream. The cause of the contest is the impurity of the blood, which the arteries by an inhibitory or stop-cock action strive to keep out of the tissues, for the nutrition of which it is unfit. The heart makes violent and inconsiderate efforts to overcome the obstacle. This view, which presents Nature in a somewhat inconsistent attitude, has been shaken by subsequent observations. Dr. LIONEL BEALE stated that the thickened vessels, more especially in the kidney, were not simply magnified in their muscular coats, but were changed in other respects. They were roughened and corrugated inside and out. Their walls were increased by an accumulation of fibrous tissue outside the muscular coat, and the muscular coat, instead of being hypertrophied, was truly atrophied, the contractile tissue being largely replaced by uncontractile fibrous growth. The researches of Sir W. GULL and Dr. SUTTON confirm this view, and give it a wider application. They maintain with BEALE that the thickening of the small arteries is not strictly hypertrophy, but is due to a morbid production of "hyalin-fibroid" tissue which encroaches upon and replaces the normal structures. They proceed to confirm the intertubular view of the origin of the disease, and hold that the new fibroid growth by which the kidney is destroyed is a formation analogous to that which thickens and narrows the vessels. They point out, consistently with our own observations, that the new growth commences about the vascular structures of the gland. Thus, in granular degeneration of the kidney, they recognise only one manifestation of a general disease, whose range is as wide as the course of the arteries. According to this view the change may begin in the kidney or elsewhere; it may progress in other parts of the body while the kidneys are free; it is as much a general disease as atheroma or lardaceous infiltration, and belongs to the whole frame, not to a particular organ.

While we are prepared to concur with many of the opinions expressed by the authors of the paper, we must suspend our judgment as to the origin of the disease in the general arterial system. The discussion has shown that, though the existence of the arterial thickening is undisputed, there is as yet no consent as to its nature. The simple observations needed to decide the question cannot be long wanting. For our own part, we cannot doubt that the coats are altered in structure as well as in bulk. They certainly break with abnormal facility. Whatever be the nature of the change, it acknowledges no relationship with any but the granular kidney. Whether the renal lesion be the progenitor or only the companion of the vascular is a question which future observations must decide.

Cirrhosis of the liver is closely analogous to granular degeneration of the kidney. The new growth of fibroid tissue between the glandular elements is probably, like that which occurs in the kidney, in close relation to the vessels of the organ. If the renal disease be but part of a general vascular change, its hepatic analogue has probably the same relation to the arterial system. If this be so, hypertrophy of the heart should accompany the hepatic as constantly as the renal disorder—an association which, if it exist, has hitherto escaped notice.

Again, it is improbable that the vascular changes—allied, as the authors say, to senile deterioration—should occur in childhood, except as the result of antecedent disease. Sir WM. GULL, indeed, expressed an opinion that children, however their kidneys may be affected, are generally exempt from such changes. An example to the con-

trary, however, is mentioned in the paper, and another fell under our own notice. A child twelve years of age died of sanguineous apoplexy, associated with extreme granular contraction of the kidney. The arteries in the kidney and pia mater were marked instances of the change under discussion. No doubt it is open to us to explain the arterial change, however early, as primary—a kind of senility in youth; but it would seem to consort better with our present knowledge to look upon the general as consequent upon the local disease—visceral changes of the fibroid type, though most frequent in advancing years, occurring sometimes at so early a period of life that we are inclined rather to assign them to causes directed solely upon the organ affected than to suppose them coeval with a general arterial change by which the whole body is blasted with antiquity.

Thus, while allowing many of the grounds on which the authors base their view, we are constrained to remit their general conclusion to the verdict of the future.

ONCE again an epidemic of interest in the quality of London water has arisen, and the points raised by Dr. LETHEBY three years ago in his well-known lecture to the Metropolitan Association of Medical Officers of Health are being rediscussed with little variation of argument. As far as the public can understand, the position is unchanged. Dr. FRANKLAND, in his reports to the Registrar-General, continues to describe the London waters in terms which are often very unflattering. Dr. FARR continues to fulminate against the "filth" with which most of the sources are contaminated; whilst Dr. LETHEBY denounces both the Government officials alike for slandering good water and indulging in ugly words, which serve no purpose except to alarm the public unnecessarily.

This state of things is a scandal in the scientific world; and it is surely high time that the inhabitants of the greatest and richest city on the globe should gain some certainty as to the goodness or badness of the water they drink. It is high time that Dr. FRANKLAND or Dr. LETHEBY should be proved to be wrong.

The palpable facts stand as follows:—Of the water supplied to London, about nine-tenths are derived from the rivers Thames and Lee, and the remainder from the deep chalk wells of Kent. Leaving the chalk wells out of consideration, it is patent to everyone that this water receives a large contamination of sewage and drainage before it is filtered and supplied to the town. This contamination is greatest in times of flood, when dirty places in town and country are washed out, and the filth carried in black torrents to the river. From the highly cultivated lands of the Thames basin, a vast amount of excremental pollution, over and above the sewage proper, goes to the river during and after heavy rain. It is admitted by all that from the time the organic matters enter the water they commence a series of changes. They putrefy and emit foul gases; but are ultimately oxidised into harmless compounds, a great part of the nitrogen remaining in the water in the form of nitrates and nitrites. Some part of the nitrogen is absorbed by growing plants, and some escapes to the atmosphere as ammonia; but it can hardly be doubted that in such water the nitrogen which remains affords a more or less exact measure of the *minimum* nitrogenous pollution which the water has at some previous time received. Dr. FRANKLAND expresses this previous pollution in terms of average London sewage, and so gets the "previous sewage or other animal contamination" to which so much objection has been made.

Now comes the most serious point of divergence between the two authorities. Dr. LETHEBY asserts, and Dr. FRANKLAND denies, that the time which elapses between the contamination of the water and its delivery to the consumer is always, or almost always, sufficient, under the conditions which prevail, for the complete oxidation of noxious matters. Dr. FRANKLAND frequently reports the London water as practically free from unoxidised sewage; but, on the other hand, he is often compelled to report, especially after floods, that there is recent as well as previous sewage contamination to be detected in the water. We confess that to our minds this is hardly a matter for wonder. But, after all, the remark that most naturally suggests itself in regard to this question is, that the burthen of proof really rests with the water companies and Dr. LETHEBY. We *know* that the water receives dangerous and very disgusting contamination. It is for them to prove, and not merely assert, that this contamination is always, and not merely often, destroyed before we drink the water.

And this brings us to the question of analysis. Dr. LETHEBY described the methods on which he places reliance in the lecture to which we have referred. That they are sufficient to distinguish bad water from good, and even to fix with great probability the quality of a sample of water, may be admitted; but that they are sufficient to determine an important point like this, that they are sufficient to demonstrate the entire removal of excretal matters and their products of putrefaction from the water, we entirely deny. We do not here enter into the details of these methods, or of those devised by FRANKLAND and ARMSTRONG. The latter have received some improvements since they were first published; and those who have visited the laboratory of the Rivers Pollution Commission know with what extraordinary care and skill they are carried out.

The waters of the Kent and South Essex Company, drawn from deep wells in the chalk, are of a different character from the other London waters, and must be judged on different principles. It is keenly debated whether the nitrates and chlorine found so abundantly in them are derived exclusively from animal sources. Dr. FRANKLAND alleges that they are, and adduces powerful arguments in support of his views. Thus there is an *a priori* probability that they should be present in water which has percolated downwards from a thickly populated and highly cultivated district, under circumstances which do not admit of the escape or absorption of nitrogen; there is no distinct evidence that nitrates are formed without animal oxidation, except the small quantity derived from rain; and, lastly, those chalk waters which have been least exposed to contamination are found to contain the smallest quantities of nitrates, or even to be practically free from them. On the other hand, however, it must be remembered that these are but negative proofs after all, and that deep-well waters are commonly free from unoxidised or recent sewage. The

application of the term "previous sewage contamination" to such water is, we are inclined to think, a mistake—if only from its liability to misinterpretation. In regard to the waters of the Thames and Lee the phrase states a fact; but in regard to many chalk waters it must only be understood as stating a more or less probable theory.

We do not think much of the charge which Dr. Letheby, in somewhat sensational language of his own, has brought against Dr. Farr, of using sensational language in the compilation of his reports. In a quaint passage of the "Colloquia Mensalia" of Martin Luther he is made to say that "the Devil may be driven away by ridiculous contemning and jeering" The demon of filth which surrounds us and poisons us on all sides is not to be exorcised by gentle language. No words which society permits us are too coarse to hurl at the monster. He is apt to be indifferent to the gentle philippic of "milligrammes in a litre." By all means let us try the effect of "tons"—in a cubic mile, if need be. More seriously, we hail anything that gives an intelligible form to the results of water analysis, even if the expression be imperfect. Decimal figures convey no idea to the public mind; whereas tons convey a very definite one. And, unless the public mind can be aroused, no force that can be applied will be sufficient to overcome the inertia of public indifference.

It was said of the late Mr. Martin, the originator of legislation for the protection of animals from cruelty, that he once rode a horse to death in unsuccessful search after an overloaded donkey. We have many times had occasion to point out how the opponents of the Contagious Diseases Acts in like manner "swallow the camel," and how they would permit many and great evils to flourish unchecked, rather than that professional prostitutes should be subjected to periodical inspection and to detention for treatment when diseased. We have shown that the welfare of the poor prostitute herself has been utterly disregarded so long as she could be used as a counter in a political game, and that even her gratitude for the benefits conferred upon her has been insufficient to silence her blatant and self-constituted advocates. But when we first called attention to the "Ladies' National Association," we hardly expected so soon to be in a position to place before our readers the novel code by which, according to this body, the world is hereafter to be governed. Mrs. Butler, one of the spokeswomen of the Association, has put forth a pamphlet entitled the "New Era," in which she tells us that men, by means of the Contagious Diseases Acts, have forced the Christian women of this country to rise, as it were, in one day, and to commence a movement which will extend, she believes, throughout the world, wherever the wrongs exist which it (we are not quite clear whether "it" is intended to mean the world or the movement) is appointed to overthrow. Finally, this ambiguous "it," as the parent of a "force which has been called into being by a strange combination of circumstances for this special achievement, will then be available to meet the difficulty at its source, and to overturn the ancient falsehood upon which the whole scandal is based." The women of the world are banding themselves together, so that they may have power to say to men, "You shall not slay us or our sisters."

If we pause to take breath for a little, if we disregard the foaming at the mouth of the Pythoness, and if we calmly endeavour to disentangle the complicated web of her misplaced relatives and antecedents, we shall find that the foregoing, and many pages of composition like to it, admit of being condensed into few and simple propositions. These are—that the prevailing doctrine about the necessity (in the present state of society) of prostitution is erroneous; that the causes of prostitution are to be found entirely in the licentious appetites of men; and that the remedy for it is to be found in regulations applied to men. The panacea for the future is that "the patrons of these places (i. e., brothels) should be marked by the police, and their names given to the public, or in some way the degradation of their act signified." This course, we are told, is actually pursued at Rochester in the United States; and it not only punishes "the delinquent," but effectually aids "in arresting this vice at its primary source." It is refreshing to observe that Mrs. Butler's objection to "police espionage" is not radical. It exists only in the case of women, and vanishes as soon as "licentious man" is to be the subject of the "hireling's" vigilance.

In speaking of the evils which, in the present state of society, might be entailed by the total suppression of prostitution, Mrs. Butler is like a child playing with fire. She says that the meaning of the statements made on this subject is simply that "the crimes alluded to entail greater physical inconvenience on men"; and it is fair to hope that she is really in absolute ignorance of some of the darker aspects of human nature.

The general statement, however, that men, rather than women, are the causes of the existence of prostitution is an error of which the members of the Ladies' Association cannot too soon disabuse themselves. Obviously prostitution would not flourish as a calling if men did not pay prostitutes. Grocers would not put sand into sugar if customers would not buy the compound; but it is the grocer, and not the customer, who is to blame for the adulteration, and the law, if it were to intervene in such a case at all, would deal with the grocer exclusively. Now, without using any such words as licentious, it is sufficient to say that the sexes are attracted towards each other by a powerful natural impulse; and that, where social laws and customs place difficulties in the way, these difficulties will be overleaped in an irregular manner. In societies where men are the chief workers and money-getters, they will pay for what they desire; and hence prostitution opens a career of which so many women avail themselves. Extreme licentiousness, as contrasted with the normal development of sexual feeling, is probably rare in either sex; but it is at least as common in women as in men. Has Mrs. Butler never heard of Messalina, or of the Empress Catherine? And even an ordinary development of sexual feeling, in a vain and flighty girl, is far less likely than in a man to be restrained by the pressure of physical work or external duties, while it is reinforced by visions of a life of luxury, sensuality, and ease. The outward aspect of the women who walk Regent-street in lace and satin is a more imme-

diate cause of the descent of many a girl to prostitution than all the licentiousness of all the men in creation. Viewed from a reasonable standpoint, it may be said that a certain amount of prostitution springs up, in a country like England, as a natural result of the difficulties in the way of marriage, as a consequence of the appetites of both sexes, and without necessity for assuming any inordinate licentiousness in either. This, which we may describe as an almost inevitable evil, no wise ruler would attempt to repress. But beyond it there is a great deal more—a whole army of prostitution, recruited largely by sterile women of strong passions; largely by merely weak and vain women, who hope for a life of greater indulgence and display than would be open to them in any other manner; in some degree, it is to be feared, by helpless women who are in danger of starving. And so, viewed as a trade, prostitution becomes overcrowded, until all who follow it are forced into the hideous competition the results of which are visible in our streets, and which seeks by every allurement to induce men to avail themselves of the facilities that are offered to them. It is against this excess of prostitution, so to speak, that legislative measures should be directed; and it is only by regulating and controlling the excess that there is any present prospect of accomplishing good work. A future may possibly be in store for our descendants in which the sources of prostitution may be dried up by a better organisation of society; but our life and our duties are amongst the events now actually around us.

Mrs. BUTLER has written to Herr von HOLTZENDORFF to ask his opinion "as to the moral teaching conveyed to the male youth of Prussia by the system of regulated prostitution, and as to its effect on the stability and purity of family and domestic life through its influence on the character of the men of those families." She quotes, of course with much disapproval, a reply in which the Prussian philosopher maintains that legislation has been eminently useful in ameliorating the effects of an evil which it is powerless altogether to repress. In Berlin repression has been tried and has failed; so that Herr von HOLTZENDORFF speaks from practical experience. We do but reiterate what we have over and over again expressed, when we say that the English Government would do well in so far yielding to public opinion that the harlot should no longer be in unchecked possession of our streets, spreading disease among our civil population and invaliding our army and navy. In the enactment of the necessary measures, we would do all that was possible to ameliorate the sad position of the woman herself, to facilitate her return to virtue, to deter others from entering upon her evil course. We would examine into foreign systems and select from them their least objectionable parts, moulding these into harmony with our own institutions, and seeking, as far as possible, to protect the health and elevate the morals of the people. To accomplish either object we must deal with facts and actions, not with motives and hypotheses. The prostitution of women falls into the former category; the assumed licentiousness of men into the latter.

IT is probable that, before THE LANCET of this week is published, most of our readers who are past or present medical officers of Volunteers will have read the extraordinary document lately issued from the War Office, and bearing date May 28th, relating to the future duties, distinctions, and *honoraria* in store for them. It is, indeed, difficult to broach or to approach the subject in a serious vein, unless, indeed, we take it as a foregone conclusion that the Volunteer force, and with it the medical department, is to be snuffed out of existence altogether. Imprimis as to duties. The circular sets forth that medical officers—i.e. surgeons, and we presume also assistant-surgeons,—besides holding diplomas of medicine and surgery, must show, before a properly constituted Board, that they are acquainted with the nature and intended application of the various articles composing the equipment of army hospitals in the field, and with the authorised means for the transport of sick and wounded soldiers, and the proper modes of employing them. They must also possess a competent knowledge of the treatment of the wounds and injuries to which troops are liable in the field, particularly as to campaigning, and be acquainted with the duties to be performed by army medical officers in camps and bivouacs, and during marches. And, when the enthusiastic medical volunteer has attained to this pitch of professional excellence, he will not only be permitted to fulfil the ordinary duties connected with corps work, but will receive the honour of being compelled to afford professional attendance and medicines to the adjutant and other permanent staff officials, their wives, and families. We may remark, parenthetically, for the benefit of those concerned, that midwifery is included in the term "medical attendance." Thus much for the duties and honours. Now about the *honoraria*? This facetious circular announces that the compulsory attendance will be rewarded by the magnificent allowance of 2*d*. (twopence) per week for each person, when sick! We have received a very able letter on the subject from a correspondent, who calculates that, if this allowance were granted on the Club system (i. e., ill or well), the total annual sum that he (a senior surgeon of a very large metropolitan corps) could draw would amount to £7 18*s*. It must be recollected, too, that, as a rule, the surgeon, the adjutant, and the sergeant instructor all live very widely, and, in many instances many miles, apart; and hence the arrangement is ridiculous from an administrative as well as from a financial point of view. We considered it a duty, in recording events connected with the last Easter Monday Review, to comment somewhat severely on the apathy and want of attention displayed by many of our cloth as to the geographical dispositions of the day. And we still maintain that no medical officer of Volunteers should continue to hold his commission unless, having of course made himself acquainted with the duties appertaining to the appointment, he is prepared to fulfil, and does fulfil, those duties whenever called upon to do so by his commanding officer. But, inasmuch as the majority of our present Volunteer medical staff is composed of men very many of whom are eminent in their profession, and all of whom are engaged in active practice, it is unlikely that the acquisition of the standard of excellence required in the above-quoted circular will be at all worth their time and attention. And it is still less likely that men who have given their services gladly and heartily in a

useful and popular movement will be bandied about from pillar to post for the wretched pittance to be doled out by Mr. CARDWELL and his colleagues. We presume that the Volunteer Force *in toto* is doomed to die, and so counsel the Medical Department to commit suicide as speedily as possible by prompt resignation.

Medical Annotations.

"Ne quid nimis."

THE COLLEGE OF SURGEONS ELECTION.

FOR the first time for twelve years the election to the Council of the College of Surgeons will pass off without a contest. The period for candidates for the Council to send in their nomination papers expired on Monday, the 10th inst., when only three papers had been forwarded to the secretary of the College—those of Messrs. Hancock, Curling, and Holt. Mr. Hancock and Mr. Curling being now vice-presidents, it might have been anticipated that on this their first re-election they would not be opposed; but as the third was an absolute vacancy, caused by the death of Mr. Solly, it might have been expected that a contest would have ensued. Mr. Coote and Mr. Pollock were at one time thought to be likely to come forward, but have not done so, and Mr. Barnard Holt may therefore be congratulated on a "walk over," and the Westminster Hospital will once more have a representative in the College Council, from which it has been absent since Mr. Guthrie's death in 1856.

Mr. Holt, in succeeding to a death-vacancy, succeeds, according to the existing bye-laws, to only the remainder of Mr. Solly's tenure of office; and as that gentleman was re-elected in 1869, it follows that Mr. Holt loses three years of his lease. When the majority of the Council were life-members there may have been some reason for this peculiar law of succession, but now that Mr. South is the sole remnant of the old system of life-election, the sooner the bye-laws are altered the better, and each Councillor allowed to have an independent existence. The height of absurdity was reached when Mr. Hancock was elected in 1863, and had to stand another election in 1864, although the present may be termed his first *bonâ fide* re-election by the Fellows.

Although the proceedings on July 4th will necessarily be of a simple character, it may be as well to mention that the presence of fifteen Fellows is essential in order to make the election valid.

PESHAWUR.

IT has been announced that Prince Arthur is to have command of a Battery of Royal Horse Artillery at Peshawur. In the absence of some authoritative intimation, we confess that we regard this announcement with a degree of scepticism that amounts to positive unbelief; but if the rumour leads to something being done towards mitigating the causes of disease at that station, all we can say is that the British soldier will have especial cause to remember Prince Arthur's name with gratitude. A correspondent has thought fit to deny the truth of some, and suggest doubts as to the accuracy of other, statements that we recently made regarding the causes of the prevalent disease at this military station. Dominated by a false theory, we are supposed to have been blind to the plainest and most obvious facts. We are not going to enter upon any discussion as to what may or may not be the causes of the fearful epidemics of cholera that occasionally decimate the garrison. Our remarks had special reference to that endemic disease which, however much it may vary in severity and prevalence, is rarely if ever absent—fever. We especially alluded to three conditions as among the most important factors in producing malarious disease at Peshawur — viz., the topographical position of the station, its damp undrained subsoil, and the very marked thermometrical variations of its climate. We have no need to deny that the soil of many parts of Peshawur is so dry that, without artificial irrigation, it would be perfectly barren, for it is in some measure due to the fact that large tracts of land are covered with water for irrigation purposes, and that the soil, especially the surface soil, yields up its moisture so readily under the influence of a tropical sun, that the locality is so malarious. The valley, roughly speaking, forms a kind of horse-shoe, and includes an area of 2000 square miles; its subsoil consists of clay; three rivers run through it, and there are some large jheels (marshes) in the neighbourhood. That our statements contained substantially what is "the truth about Peshawur" we have quite sufficient evidence to prove. In the first place, we made those statements on information obtained from those who had been there; and, in the second place, we are fully corroborated by information contained in different official reports. Let us take that furnished by the late surgeon of the 93rd Highlanders whilst stationed at Peshawur in 1862. Dr. Munro declares — "The position of the district, surrounded as it is by lofty mountains (with only one outlet, where the Cabool finds its way out of the valley to the Indus), the immense quantity of water which both flows through and stagnates in the valley, the abundant annual vegetation, and the constant evaporation from the surface, must all be fruitful sources of malarial influence, and we find that fevers of different types are prevalent." And the same authority states that "to the north-east and south-east are extensive marshes and large tracts of cultivated land, also the Cabool river running north and south; but nothing exists to protect the station from the easterly winds, or from the damp and malarial influences which must be generated in so large a tract of open, bare surface, saturated with moisture." We are glad to perceive that Mr. Grant Duff endorsed in the House of Commons the accuracy of our announcement that the Indian Government was about to undertake immediate measures for improving the water-supply of Peshawur.

THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

THE House of Commons was engaged on Monday evening in the necessary but not generally interesting business of voting the supplies for the maintenance of various branches of the public service. It is not without reason that we have had our eye on the progress of the Civil Service Estimates, and what took place on Monday night shows that there is ample need of watchfulness. When these estimates were issued in March last we called attention to the reduction which they showed in the salary of the medical officer of the Local Government Board from £2000 to £1500 a year. At the same time we stated that according to information derived from an authentic source the reduction was apparent only, it being understood that the £500 difference would be made up to Mr. Simon out of the Privy Council vote, he being still the medical officer of the Council for certain purposes. The Privy Council vote was granted on the 29th ult., but it comprehended no such provision as we have referred to in any shape that we could recognise. We supposed, therefore, that Mr. Stansfeld had decided upon including the whole £2000 in the vote for his department, which vote was taken on Monday evening, when the following incident is reported by the *Daily Telegraph* as having occurred:—Mr. Powell (a member of the Royal Sanitary Com-

mission) called attention to the reduction of the salary of the medical officer from £2000 to £1500; Mr. Stansfeld "explained that the salary of the medical officer had been raised two years ago from £1500 to £2000; but the Treasury, on a subsequent consideration of the Act of Parliament under which he was appointed, thought it desirable to take the opinion of the law officers of the Crown upon the legality of the increase, and they were ultimately advised that it was contrary to the Act."

What does this mean? It is discreditable to the Government that Mr. Simon should be made to appear in the light in which he has been placed by the Local Government Board and the Treasury. The idea that any official gloss or stratagem is requisite to induce Parliament to sanction the continuance to him of a salary which it has willingly, nay cordially, voted to him in previous years is utterly absurd. That there was a distinct understanding that he was to suffer no loss of salary, notwithstanding its apparent reduction in the estimates, we have not the least doubt; but Mr. Stansfeld's answer in the House on Monday points clearly to the necessity of having done with "understandings," which recent diplomatic transactions have shown to be not always satisfactory as bases for the settlement of affairs.

DR. PETTIGREW ON CIRCULATION.

DR. PETTIGREW delivered the sixth of a course of lectures on "The Physiology of the Circulation in Plants, in the Lower Animals, and in Man," on the 7th inst. The lecturer described in succession the circulation as it exists in the star-fish, the holothuria, the spider, the insect, the lobster, the brachiopoda, the gasteropoda, the cuttle-fish, the fish, the proteus, axolotl, siren, frog, lacerta ocellata, python, crocodile, &c. In the star-fish, the intestinal vascular system consists of loops, from which arteries and veins are given off, these being connected with a dilated pulsatile canal, which may be regarded as a rudimentary heart. Similar remarks are to be made of the holothuria. The lecturer observed that hitherto he had been dealing principally with the invisible forces concerned in the circulation—viz., absorption, capillarity, osmosis, evaporation, chemical affinity, &c. These occasion a circulation of nutritious juices, independently of vessels and hearts, alike in plants and animals. Vessels and hearts are the minor rather than the major factor in the circulation. They, however, constitute the visible forces of the circulation in animals, and have from this circumstance attracted a degree of attention to which in reality they are not entitled. The lecturer explained that the circulation within the tissues constitutes the only real circulation; that within the vessels and heart being accessory. This is in some senses a new doctrine, but it has much to recommend it, and is deserving the attention of physiologists. The gradual development of bloodvessels, pulsating sacs, and hearts in the lower animals is especially interesting when viewed in connexion with the differentiation of the other structures; the bloodvessels and hearts being to the animal economy what the waterworks and water-pipes are to a city and its inhabitants. A draw-well or a pump suffices for a cottage, but an engine, waterworks, and feeders are necessary for a populous city with its numerous manufactures. In the spider a large dorsal vessel, which is dilated posteriorly, makes its appearance, this giving off branches which ramify through the body. The venous blood is collected in open sinuses on the abdominal surface of the animal. As yet there is only an arterial system. In insects the dorsal vessel is divided into a series of swellings, each of which is furnished with valves and endowed with a pulsatile power. The swellings open and close alternately, and force the blood forward by a swallowing or wave-like movement, similar to that performed by the œsophagus of the leech when sucking and swallowing blood. The heart of the embryonic chick resembles the dorsal vessel of the insect, inasmuch as it consists of a tube with three constrictions in it—one constriction representing the future auricle, another the future ventricle, the third corresponding to the arterial bulb. The heart of the lobster appears in the shape of a muscular oval-shaped cavity or ventricle, situated on the dorsal aspect of the animal. It forces the blood directly through the arteries, and indirectly through the veins, so that it is to be regarded as a systemic heart, as contradistinguished from a pulmonic heart. The brachiopoda have two aortic hearts—i. e., two pulsating cavities—situated on the principal artery of the body. In the cuttle-fish there is a muscular systemic heart, to which may be added two dilated portions in the bloodvessels which lead to the branchiæ, and which may be regarded as the harbingers of the pulmonic heart. The connexion between the circulation and the respiration is now becoming defined. In the fish, the heart consists of two cavities (an auricle and a ventricle)—the auricle receiving the venous blood from the liver and system generally; the ventricle forcing the blood through the capillaries of the gills, where it is aerated and converted from a purple to a bright-red colour. In the axolotl (frog and aquatic reptiles) the heart consists of cavities—two auricles and one ventricle; the left auricle receives the arterial or red blood from the lungs, the right auricle the venous or dark blood from the system, the two kinds of blood being mixed in the ventricle. This constitutes the mixed circulation of reptiles as a class. In the lacerta ocellata, a rudimentary septum makes its appearance in the ventricle, so that in this curious creature the heart virtually consists of four compartments—two auricles and two ventricles. The systemic and pulmonic heart as it exists in the bird and mammal is now distinctly foreshadowed. In the heart of the crocodile (Crocodilus Lucius) the septum ventriculorum, as was pointed out by Hentz and Meckel, is quite complete, so that the ventricles of this animal are as perfect as either those of the bird or mammal. The lecturer endeavoured to show that in proportion as the tissues become differentiated, so the machinery of the circulation becomes more and more complex. The lecture was illustrated by a large number of beautiful diagrams, and by several original experiments. Dr. Pettigrew intimated that his seventh lecture will be on the fœtal circulation.

PORT SANITARY WORK.

ONE of the most satisfactory items in the Report of the Local Government Board, recently published, is a record of work done by Dr. Buchanan and Mr. Netten Radcliffe in the autumn of last year, when we appeared to be threatened by another epidemic of cholera. The labours of the former were chiefly confined to the port of London, but, owing to the multiple division of theoretical authority and the absolute absence of any practical supervision, little else was done beyond the formation of an "Inspection Committee," and the preparation of a scheme of action in the event of the actual appearance of the epidemic. As, however, this port is the most important as well as the most difficult to manage in the United Kingdom, Mr. Stansfeld has made it the subject of a special clause in the Public Health Bill.

The work done by Mr. Radcliffe was very comprehensive and very successful. As soon as the existence of the case of cholera landed at Hartlepool was reported to the department he proceeded to that port, recommended combined action on the part of the authorities of East and West

Hartlepool, the appointment of a medical inspector, and the establishment of a floating hospital. He then visited Newcastle, and induced the authorities of Gateshead, Newcastle, South Shields, Tynemouth, Walker, Wellington and Corden, Wallsend, and Jarrow to combine, the result of which was the appointment of Dr. Bramwell and other officers, and the establishment of the admirable floating hospital described at length in THE LANCET of January 6th last. Mr. Radcliffe subsequently went to all the ports, great and small, on the eastern, southern, and western coasts of England, and made in most positive, and in the rest provisional, arrangements with the local authorities, with a view to prevent the introduction of the disease by means of the shipping. A total of forty-eight ports were thus visited by the two inspectors, and the importance of this sanitary step thus promptly taken cannot be exaggerated. For we know perfectly well that cholera, if introduced at all into these islands, must be brought by the shipping, and so, by instituting a rigid surveillance over all vessels that arrive, particularly at the north-eastern ports, we may keep it not only out of those ports but out of Great Britain. Indeed, there can be no doubt that port sanitary work should receive special and continuous attention at the hands of Mr. Simon's department. And, inasmuch as the energetic and continuous exertions of Dr. Buchanan last year failed to induce any practical result whatever in the port of London, it is the obvious duty of the President of the Local Government Board (if the ministry continue to neglect the Health Bill) to bring in a short Bill that will, by defining accurately the sanitary authority of the port, place London on at all events an equality with other water-side cities and towns in the kingdom.

THE COLLEGE OF SURGEONS AND THE CONJOINT SCHEME.

AT the adjourned meeting of the Council of the College of Surgeons on Thursday, the 6th inst., the consideration of the recommendations of the Joint Committee of the two Colleges was completed. It was proposed and carried to omit Clauses 11 and 12, which refer to the appointment of a treasurer and auditors for the Committee of Reference, to which the conjoint examination will be entrusted. It was felt, we believe, by the Council of the College of Surgeons that it ought not to give up the sole control of the funds to be derived from the candidates for the conjoint examination to the members of the Committee of Reference, since the College of Surgeons has a right to claim two-sixths of the entire sum for the support of the museum, library, and College establishment. It is proposed to take legal advice as to the means for securing the payment of the balance due to the College of Surgeons to its treasurers; and it will be proposed, we believe, to the College of Physicians that the treasurers of the two Colleges shall act together as treasurers for the Committee of Reference, a professional auditor being employed to examine and verify the accounts.

The scheme of examinations underwent some important modifications at the hands of the Council. We remarked last week that the scheme apparently contemplated the entry of every student at a medical school in the summer session, and that this was a hardship. We are glad, therefore, to find that the Council of the College of Surgeons proposes to modify this by allowing a student to go up for his first examination in chemistry and materia medica *at any time* after entry to a medical school, and without insisting upon his having attended specific lectures on these subjects. The object doubtless is to allow students who have had the opportunity of studying chemistry and pharmacy in the country or under private teachers to pass the examination at the time most convenient to themselves, so as to be free to devote their energies to anatomical study. With botany entirely eliminated from the curriculum, and materia medica become an optional subject as regards lectures, the student will have time to work thoroughly at chemistry and to attend suitable lectures on therapeutics.

The date of the second examination in anatomy and physiology is now proposed to be fixed after the completion of two winter and two summer sessions, and this we must protest against since it again implies entry in the summer session or postponement of the examination. The authorities of the College of Surgeons ought to be aware that anatomy and physiology are practically studied in the winter months, and that students should be admitted for examination at the end of their *second winter*, when they are fresh from their dissections. It would be exceedingly hard upon an industrious student to postpone his anatomical examination for three months simply because he entered the school, as has always been the practice, in October.

The clauses recommending that the management of the examinations in anatomy, physiology, and surgery should be under the superintendence of the Royal College of Surgeons, and the management of the examinations in the remaining subjects should be under the superintendence of the Royal College of Physicians, were omitted as conflicting with Clause 8 of the original scheme, by which the superintendence of all the examinations was vested in the "Committee of Reference."

Lastly, it was moved and carried that the four representatives of the College of Surgeons on the Committee of Reference should be elected by ballot from among the past and present members of Council, the election to be at the ordinary meeting of the Council on the 13th inst. The result of the election will be given at another page.

DR. LYONS'S EXPERIENCE OF SMALL-POX AT HARDWICKE HOSPITAL.

WE have before us a Report on Small-pox in the Hardwicke Hospital, Dublin, for the year ending 31st March, 1872, drawn up by Dr. Robert Lyons. The report contains a return of small-pox patients admitted into the hospital from 1841 to 1871, from which it appears that there were 1296 admissions during that period. In the year ending March, 1869, no cases of that disease had been admitted, and it is not until February, 1871, that we come to the first case which the entries of the present epidemic record. From May, 1871, to the following March, 612 cases of small-pox were admitted. Of the 240 cases that passed through the wards of which Dr. Lyons had special charge 42, or 17·5 per cent., proved fatal. The mean mortality among all the admissions was 11·82 per cent. of those vaccinated, while it reached 78·57 per cent. among the non-vaccinated, including the doubtful cases. Or to borrow the more striking terms used by Dr. Lyons, only 12 out of 66 recovered of the non-vaccinated, or 18·18 per cent., while of those protected by vaccination, 478 out of 542, or in the proportion of 88·19 per cent., recovered. The purpuric appears to have been a prevalent and very fatal form of small-pox in Dublin as well as in London. Dr. Lyons recognises three degrees of this complication: purpura with well developed small-pox, going through all its stages—not usually fatal; purpura in excess of small-pox; and purpura without small-pox pustules. Very early in the history of the present epidemic in England we remember to have seen this purpuric and hæmorrhagic condition in the case of a strong young man who had been long enough ill for some of the anatomical signs of small-pox to have developed themselves, but none were present. The skin of the face and upper part of the body was of a mulberry hue, the

lower extremities were covered with petechiæ, and the conjunctivæ were so chemosed that a roll of that membrane projected from the interval in the partially closed lids; hæmorrhage took place from the lungs and mucous membranes, and on listening to the cardiac region a soft murmur accompanied the first sound of the heart, probably from blood effused into the valves. The case closely resembled the malignant purpuric fever of Stokes, but the other symptoms of that disease were absent. Dr. Lyons reports that out of the 612 cases that have passed through the Hardwicke Hospital in the year, not one case has lost an eye or had the sight permanently impaired, although the instances of eye affection were very numerous.

THE AMENDMENTS IN THE PUBLIC HEALTH BILL.

IT is at least satisfactory to observe that a large number of members have studied the details of the Public Health Bill. Upwards of eighty amendments have been placed upon the notice paper by some fifteen or sixteen members. Most of the suggestions we think desirable are included. Dr. Lyon Playfair and Mr. Dimsdale have undertaken the clause relating to the pollution of rivers. Mr. Corrance has provided for the improvement of the Poor-law Dispensaries. Lord Eustace Cecil has embodied the alterations proposed with respect to adulteration. Mr. Charley and Mr. Muntz have directed their attention to restricting the power of the Local Government Board, whilst the effect of the amendment of Mr. Andrew Johnston would be to increase it. Mr. Dimsdale has adopted our suggestion for giving more power to the public. Four householders will initiate action, and even enforce inspection, on the part of the Local Government Board. The vexed question of county authorities will be introduced by Mr. Corrance, and the more popular institution of local sanitary committees by Sir Selwin Ibbetson, who also proposes a clause for enforcing the annual inspection of cottage property. Mr. F. Powell proposes to extend the definition of the word "nuisance," and in accordance with our suggestion he proposes to make "buzzers" a nuisance. Mr. Kay Shuttleworth proposes to transfer the water-supply of the metropolis from the Board of Trade to the Local Government Board, and Mr. Torrens to give sanitary authorities power to rebuild workmen's dwellings.

On the whole, we think, these amendments indicate no very serious opposition to the Bill. Many of them will no doubt be accepted by the Government more or less completely. The most serious question is that of county boards, and upon that Mr. Stansfeld is not likely to give way.

A NEW CONTAGION.

IN the April number of the *Contemporary Review*, Mr. Herbert Spencer remarks of the typical man of science that "checking every statement of fact and every conclusion drawn, he keeps his judgment suspended until no anomaly remains unexplained." This observation may be commended to the special attention of those modern statisticians who are occasionally given to subjecting the confidence we repose in them to undue strain. They strike us as now and then failing to guard against possible error arising out of their own personal idiosyncrasies as well as out of insufficiency of data; and they sometimes betray a precipitancy in forming conclusions which verges on rashness. An illustration of this occurs in the Report of the Scotch Registration Department for the year 1871, wherein it is advanced that density of population has an effect in raising the marriage- and birth-rates similar to that which it exercises upon the death-rate. We read, however, that this proposition "is of comparatively modern origin, and has not yet obtained the formal assent of statisticians." In a former report this theory was spoken of as "a most important fact as bearing on the question of sanitary reform"; the precise manner in which it is supposed to operate in that respect being left unexplained. The basis, in fact, which this new doctrine rests upon is simply this: the proportion of marriages, births, and deaths, to the population is found to be highest in the principal towns, lower in the smaller towns, and lowest in the rural districts. But does it logically follow that the mere aggregation of the people, without regard to their physical or social condition, or to any other circumstances whatever, is the sole cause of their marrying and having children faster than do the dwellers in rural districts? It may be so, but we confess to a suspicion that there is a lurking fallacy somewhere in the deduction. The crowding together of a large population into a town which insufficiently accommodates the people naturally tends to induce disease and consequent mortality; but a small town in a high state of prosperity, with a fair proportion of marriageable men and women, would surely show a relatively higher marriage-rate than a large town where trade was in a depressed condition, and a marked disproportion of marriageable males or females existed.

Glasgow is twice as densely populated as Edinburgh; the marriage-rate is 10 per cent. higher in Glasgow than in Edinburgh, and the proportion of males and females aged 20 to 50 is exactly equal in Glasgow; while in Edinburgh there is an excess of 4½ per cent. in the women. Would it be safe to say that the greater aggregation in Glasgow is the sole cause of its higher marriage-rate? Further, one would like to know what allowance has been made in this new statistical theory for another influence as regards marriage celebrations: has density of population or fashion the most to do with the disproportionately numerous weddings which take place at St. George's, Hanover-square, or St. Paul's, Knightsbridge, for example? It would be an odd discovery that marriage, like measles, is catching.

CLERICAL CANVASSING.

WE print elsewhere a letter signed "Not a Candidate," which encloses a lithographed circular from the Rev. Canon Bentley to the subscribers to the Manchester Royal Infirmary. Our readers will see that the object of the circular is to obtain proxies for a possible election at the infirmary, under the supposition that the illness by which one of the surgeons is now disabled may, perhaps, occasion a vacancy.

The grotesque indecency of this circular is a good illustration of the want of moral sense by which the clergy are so often afflicted. To ordinary lay persons it seems plain that a vote for an infirmary election is an important trust, that it entails upon its owner an obligation to hear the claims of all candidates and to decide between them, and that the bestowal of a proxy upon the first applicant, however bespattered by clerical laudation, is a breach of duty which cannot be excused. The power of voting by proxy is usually given to ladies, to peers, and to members of Parliament only; as if in assertion of the principle that the vote should be a personal act of choice on the part of the elector; and a privilege accorded to the weaker sex, on account of their greater difficulty in travelling to a perhaps distant place, would be far better rescinded if it serves only to render them the subjects of pastoral dictation with regard to their employment of the vote committed to them. The profession in Manchester will know, better than we can do, how far Mr. Whitehead is innocent of participation in this breach of good taste and of propriety; and will not visit upon him, without good reason, the offences of the advocate whom he has had the ill-fortune to obtain. If Mr. White-

head was cognisant of Canon Bentley's intention to canvass for him prior to the occurrence of a vacancy, we can only say that the loss of his election would be a very proper penalty for his having failed to prevent so improper a proceeding.

"CRIMINAL LAWYERS" AND "MAD DOCTORS."

The relations between the Old Bailey barrister and the modern alienist are yearly becoming less satisfactory, as, indeed, is almost inevitable, when the knowledge of the one is stationary and that of the other is progressive. The bar, it has been said, is rapidly assuming towards psychological medicine the attitude so long maintained by the church towards physical science, and is equally scandalised with the inquisitors of Galileo when its medical rival threatens to rectify the frontier which divides irresponsibility from crime. "E pur si muove" is the motto which medico-psychology can justly adopt; and if barristers would care to know why, let them peruse a vigorous and well-informed article on the "Extent of Insanity" in the new number of the *Dublin University Magazine*. There they will find the conclusion arrived at, after much careful and lucid induction, that "our asylums contain but a very small minority of those who are affected with disease of the brain." Lunatics are *non nusquam*, as Celsus says of medicine; ay, and fulfilling successfully the various duties of life. "We find them," according to the *Dublin University Magazine*, "at the bar, in the pulpit, in legislative halls, and on the throne; among our labourers, our artisans, our husbandmen, our merchants, and especially among our poets, scholars, and men of letters." To confine these in an asylum would, in the vast majority of cases, be unjustifiable—all the more so when it has been proved that lunatics of every type may be successfully treated in the quiet of country homes. "If, however," says the writer, "it were appreciated by the profession and the laity that the milder phases of insanity are thus frequent among us, there would be greater charity for the crimes to which they give origin, and much might be done to modify or prevent their evil consequences to individuals and to society." The doctrine here enunciated has, indeed, been held, implicitly or explicitly, as Sir W. Hamilton used to say, from the dawn of medicine to the present day, and is as pointedly illustrated in the well-known satire of Horace as in the pages of Conolly.

THE OBSTETRICAL SOCIETY AND MIDWIVES.

When the scheme for the examination of midwives by the Obstetrical Society was first propounded, we expressed regret at its somewhat amateur complexion. For this there was, as the result has shown, only too much reason. Not content with the action of the London Society, the members resident in Birmingham (or, as they style themselves, the "Fellows," although they might just as properly style themselves "Right Honourable") have proposed to constitute a local board, and to examine midwives there also. The Obstetrical Society is largely made up of gentlemen scattered over England in general practice, and the natural outcome of the Birmingham suggestion would be that each of the members would in time hold a local examination in his own district, and would issue diplomas under his hand and seal. Considering that the standard set up by the different examiners might vary, it would become a curious question over how wide an area the privileges conferred by such diplomas should extend. The profession in Birmingham has met the proposal by a timely protest; but they have failed to notice that the scheme of the "Resident Fellows" has done good service: it has called attention to the utter absurdity of the original one upon which it was founded.

MILITIA SURGEONS.

The militia surgeons have begun to bestir themselves in good earnest, and it is quite clear from several questions that have been asked in the House that Mr. Cardwell has been made to feel the weight of parliamentary pressure. We have already an "Irish Militia Surgeons' Association," and we may expect to hear of a similar organisation on this side St. George's Channel. We see no reason for swerving from the position we originally took up. Mr. Cardwell has proposed a depôt centre system as an essential part of his military reorganisation scheme, and it has been adopted by Parliament. In order to give effect to his Bill, the War Minister finds that he shall no longer have a place for militia surgeons; at any rate, he will be compelled to curtail their duties in regard to enlisting and medical attendance on the militia staff. As these duties are the only lucrative ones, the militia surgeons naturally want to ascertain what compensation they will be able to claim under the circumstances. Mr. Cardwell refuses to lay down any general rule, but promises to decide on the merits of individual cases as they arise. Ministers' promises of this kind are not regarded as the best investment in the world. Why does not Mr. Cardwell declare that the present incumbents shall either be allowed to retain their posts as long as they are fit for their duties, or become entitled to compensation on a definitely declared scale if called upon to retire?

SUGAR IN NORMAL URINE.

Brücke was the first to state that the healthy urine of man contained sugar, since, on boiling with alkali, it became of a deep-yellow colour, and reduced small quantities of the oxides of bismuth or copper. Bence Jones repeated Brücke's experiments; and, by another method enabling him to obtain carbonic acid and alcohol as the result of its fermentation, convinced himself of the presence of sugar in normal urine. Kühne estimated the quantity at 0·1 per cent. These statements are contested by Prof. J. Seegen in Pflüger's *Archiv* (Band V., Heft viii.) Starting from the observation that all the symptoms of diabetes are not unfrequently present when the percentage amount of sugar does not exceed that given by Kühne, he thought it highly improbable that such a discharge should be of normal occurrence; and he was induced to examine the whole subject methodically. He took large quantities of urine, and repeated the various methods for the detection of sugar given by Brücke and others; but with only negative or very unsatisfactory results, which were chiefly owing to the fact that all the sugar-tests at present known are not sufficiently precise. He therefore maintains that the excretion of sugar by the urine is not a physiological function of the kidneys, and that in the normal state none is present. He further observes that the persistent excretion of even very small quantities of sugar in the urine is accompanied by the general symptoms of diabetes.

THE ARCHDUCHESS SOPHIA OF AUSTRIA.

The death of this Princess is, according to the *Allg. Wiener Zeit.* of June 4th, surrounded with some obscurity. The state of the august patient had been so favourable shortly before her death that no evening bulletin had been published. On the 19th of May the bulletin did not appear, and on the 20th the Princess, on attempting to leave her bed, well-nigh breathed her last. The author of the article complains that all through the malady no actual diagnosis was made, and that the doctors never agreed as to the nature of the complaint. The principal physician in attendance was Dr. Bamberger, the newly appointed successor of Oppolzer, and he, unfortunately, was unable to ward off the

fatal issue. The Emperor, however, expressed his grateful thanks to him. An awkward friend of Dr. Bamberger's took this opportunity of proclaiming, in a medical paper of Vienna, that the professor had been instrumental in placing the profession in a favourable light at Court, whereupon Dr. Kraus, the editor of the *Allg. Wiener Zeit.*, showed, with great warmth and much indignation, that such men as Rokitansky, Hyrtl, Skoda, Brücke, Billroth, Dummreicher, and others had been loaded with rewards and dignities, and had placed the renown of the Vienna school on a high pinnacle long before Bamberger joined them.

CHARITABLE "ELECTIONS."

THE system of election into so-called charitable institutions has again been brought before the public in connexion with the Hospital for Incurables; and Mr. Huth, the treasurer of that establishment, referred to it in his observations at the recent annual election. He defended the custom on the ground that it was to the activity engendered by canvassing that the hospital owed much of its success; and he further praised it with faint censure by saying that it was alleged to be "rather hard upon the candidates and their friends, because it entailed a great deal of trouble upon them." We must try and undeceive Mr. Huth. What has been alleged is, not that the system is rather hard upon candidates and their friends, but that it absolutely excludes the most deserving cases from any chance of success, or even from attempting to become candidates at all. There is no charity, but only humbug, in saying that a benefit is to be conferred on any destitute person who can spend a great deal of money in securing it. Institutions in which this system flourishes are not so much charities as organisations for relieving well-to-do people of helpless relatives or dependents: they are for the convenience of the rich, not for the benefit of the poor. We see no objection to the rich maintaining such establishments if they please, so long as they do not maintain them under a false pretence of charity, and do not beguile those who have no wealthy or influential supporters into spending what is perhaps their all in a vain trust that the merits of a case will secure the success of a candidate. As matters stand, somebody must "take the case up," and the person who takes it up is generally someone on whom there is much claim to make a sufficient provision for it.

THE GERMAN EMPIRE AND EPIDEMIC DISEASES AFLOAT.

A LARGE sailing ship belonging to Bremen started from that port for New York on the 4th of April, with a full cargo and nearly 500 emigrants. Small-pox broke out among the crew before the vessel had been at sea two days, spread rapidly, and caused six deaths during the passage of thirty-nine days. Measles and scarlet fever attacked the children, and killed twenty-five of them. The *Europa*, another German vessel, arrived at New York some few days ago, having lost thirteen emigrants, out of a total of thirty-six cases of small-pox. Neither of these vessels carried a medical officer, and there is no law to compel them to do so. The captain is provided with a medicine chest, and administers the contents *à discrétion*. We commend the above facts to the attention of the Mercantile Marine Department of the German Empire, for it is manifest that, in the acquisition of new rights, they have also acquired new responsibilities of a particularly unpleasant description. It is possible, however, that if their reforms come quickly, they may yet be able to give us some practical lessons in sanitary science afloat, as we have for many months exported, and still continue to export, small-pox to other countries, Germany inclusive. The Americans have already given us their opinions on this subject, and may possibly transmit them with happier results to Prince Bismark and his colleagues.

THE STRAND "DEAD-HOUSE."

THE clerks in Somerset House will no doubt learn with satisfaction that should any of them have the misfortune to die suddenly at their posts they would be spared the indignity which was put upon one of their class who died in the Audit Office three years ago, and whose body was thrown into that "mere shed which would afford indifferent accommodation for a pig," known as the Strand "dead-house." Our readers will remember with almost a thrill of horror the description given by the medical man who had to perform the post-mortem in that case, of the circumstances under which his task was executed, by reason of the shameful unfitness of the place for the purpose. Well, the Strand "dead-house" has gone at last, and its place will, we hope, know it no more. The low, hutch-like doors remain, but the "rickety structure of old boards" to which they gave admission has been entirely cleared away, and the parish engine has, we trust, found a home in which it will be hereafter free from the occasional companionship of a corpse. The demolition of the Strand "dead-house" removes at least one blot upon the reputation of the metropolis.

THE LICENSING BILL.

WE observe that Earl Grey has given notice of his intention to move the addition of clauses to the Licensing Bill to confer upon a town council or other local authority the power to take into its own hands the retail trade in intoxicating drinks within the area of its jurisdiction. We cannot but believe that this provision would work extremely well in many places, and that it would afford to an enlightened local authority the means of experimentally determining many questions of the greatest interest. For example, the plan pursued in Gothenburg might be attempted, the profits of the drink trade being applied to diminish the price of wholesome food and of unintoxicating beverages sold in the same establishments. At all events, the adulteration now practised by retailers might be checked, and the adulteration (if any) carried on by brewers, distillers, and rectifiers might be detected. The clauses would of course be permissive only, and we shall rejoice if they are accepted by the Legislature.

WEST WARD WORKHOUSE, CUMBERLAND.

IT is really refreshing to hear a Poor-law inspector speaking out. At a late meeting of the West Ward guardians Mr. Cane drew attention to the disgraceful condition of the workhouse, and told them plainly that it would be his duty to recommend the Local Government Board to issue an order for its closure. Not a moment too soon. In 1869 there was an outbreak of the most virulent fever, from which five out of seven of the inmates who took it died. The master and schoolmistress were the only survivors. Shortly after a woman and her daughter died of the same fever. Mr. Cane said he had visited many workhouses, but, in the whole of his experience, he had never seen a workhouse so little fitted for the reception and proper care of the poor. He said he really felt bound to advise the guardians to give out-relief to some of the inmates, to send others to the lunatic asylum, and to board out the children. A promise was given that the question should be taken into consideration at the next meeting; but the subject has been talked about so long

that it will need the exercise of considerable firmness on the part of Government to bring these economical gentlemen to a proper sense of their duty.

MEDICO-NAUTICAL NOTES.

THE Board of Guardians at St. Austell have petitioned the Lords of the Admiralty for the loan of a gun brig belonging to the navy, now lying in the Hamoaze, with the view of mooring her in the harbour of Fowey, for the reception of cases suffering from infectious diseases.

A fishing-smack arrived at Grimsby several days ago with small-pox on board. Cases of this kind are constantly occurring in vessels employed at the Dogger Bank and other fishing grounds, because there is no systematic inspection of the men before signing articles; nor is sufficient care taken to fumigate and disinfect all smacks in which small-pox or other infectious diseases have occurred. This is a subject to which the attention of the Marine Department of the Board of Trade ought to be directed.

A quarantine of ten days is now imposed upon all vessels arriving at Constantinople from Odessa, in consequence of the prevalence of cholera at the latter port.

We learn by later advices that cholera has appeared at Khotive in Bessarabia, a town of 20,000 inhabitants, and at Krewentchook, on the Dnieper.

THE CHESHIRE COUNTY ASYLUM.

THIS asylum was opened on May 8th, 1871. It is intended to afford accommodation for 700 patients, and has been erected at a total cost of £141,823, or about £202 per patient, inclusive of land, furniture, bedding, and clothing. The first Report of the Committee of Visitors just issued shows that the average cost per head per week for 219 patients has been 11*s.* 3*d.* A very able statement of the progress made, and of the present condition of the building and its inmates, is appended to the report, and presented by Dr. Deas, to whom the committee express special acknowledgment for the able and energetic way in which he has overcome various difficulties connected with the opening of the institution. Well-deserved compliments of this kind do much to strengthen that *entente cordiale* which should always exist between the committee and the medical superintendents in large public establishments.

THE MEDICAL SERVICES.

WE are authorised to state that it is not intended to hold any competitive examination for the British Medical Service in August next. Candidates will, however, be required for the Indian and Naval Medical Services, and competitive examinations will, consequently, be held for those departments.

DR. LIVINGSTONE.

DR. KIRK reports that Dr. Livingstone is safe at Unyanyembe, one-third of the distance between Ujiji and Zanzibar. Further intelligence is anxiously looked for, and we hope one item of it will be that the doctor shortly intends to return and leave the work of exploration to younger hands.

THE CORONERSHIP OF LONDON AND SOUTHWARK.

THIS office is vacant. The Officers' and Clerks' Committee have reported on its nature, duties, and emoluments, and have recommended that, as heretofore, the Council should appoint one person to be Coroner of the City of London and Borough of Southwark; that it was not expedient to confine the qualification of candidates to either the legal, medical, or other profession; that the gentleman appointed should undertake to discharge personally all the duties of the post, and to provide an office in the city. The emoluments amount to about £800. The appointment is to be made next Thursday.

WE learn that the French authorities have declined to send any delegates to the conference proposed to take place at Berlin with the object of fixing on a broader and more permanent basis the privileges (under the convention of Geneva) of medical officers, and the ambulance *personnel* generally. Like many other good intentions, we fear—at any rate as far as the International Aid Society is concerned—that the philanthropic objects of those who advocated all this sort of thing have scarcely been realised, and that the Red Cross covered, but scarcely concealed, a good deal of heartburning and irritation.

ON Thursday, in a Convocation holden at Oxford, it was agreed to confer the honorary degree of Doctor of Civil Law on Dr. George Burrows, of Caius College, Cambridge, F.R.S., President of the Royal College of Physicians of London, and some time President of the General Medical Council; Samuel David Gross, M.D., LL.D., Professor of Surgery in the Jeaffreson Medical College, Philadelphia; and on Sir Benjamin Collins Brodie, Bart., M.A., F.R.S., some time Waynflete Professor of Chemistry.

DR. ROGERS has forwarded to us a petition, signed by 39 Poor-law medical officers, concurring in the resolutions adopted by the joint Committee on State Medicine of the British Medical and Social Science Associations, and drawing attention to resolution No. 6, as the petitioners "consider that it would be an extreme hardship to impose further duties without extra pay on the already overworked and underpaid medical officers." The petition is to be presented when the Public Health Bill goes into committee.

IT is stated that a peremptory demand has been made upon the Spanish Government by the American Minister at Madrid, for the immediate and unconditional release of Dr. Houard, now under sentence of imprisonment by a court martial which sat at Cuba, for having, as was alleged, supplied medicine chests to the rebels.

A MEETING of past and present students of the Manchester School of Medicine was held on Tuesday last, when a committee was formed to obtain subscriptions towards defraying the expenses of the new School on its amalgamation with Owens College. Liberal donations were announced at the close of the meeting.

TO-DAY (Friday) the members of the Senate of the University of Cambridge will proceed to elect a representative of Medicine and a representative of Surgery on the Conjoint Examining Board for England, in accordance with Regulation VI. of the scheme approved by grace on the 15th February, 1872.

WE regret to hear that Dr. Rawdon Macnamara, of Dublin, has been suffering from a dangerous attack of inflammation of the lungs.

MEDICAL men in America are organising a National Public Health Association. It is proposed to have a Bureau at Washington.

DR. ALFRED MEADOWS has been elected a corresponding member of the Imperial Medical Society of Vilna, the oldest medical society in Russia.

THE Medical Committee of the Queen's Hospital, Birmingham, have just presented their thirty-first annual report, from which it appears that 1567 in-patients have been admitted during the past year, and 17,418 persons treated as out-patients, including 341 midwifery cases attended at their own homes.

WE are authorised to contradict the report that the Imperial Household at Chislehurst is about to be broken up by the departure of the Emperor to Bavaria and of the Empress to Spain on account of ill-health.

THE Local Government Board have just sanctioned the appointment of Dr. Robert Fowler, who is an annuitant under the Poor-law Amendment Act of 1867, to be a guardian for the Parish of St. Botolph, Bishopsgate.

THE mortality last week in London and twenty other large towns was at the rate of 23 deaths annually to every 1000 of the population. In the metropolis 27 deaths from small-pox were registered.

SMALL-POX has become very bad in Cork, 123 deaths having been registered there within the last fortnight from this disease.

SCARLATINA is very prevalent in the suburbs of Dublin, and numerous deaths have taken place from this malady.

NOTES ON PROVINCIAL HOSPITALS.

THE GUEST HOSPITAL, DUDLEY.

THIS hospital was opened on the 1st of January, 1872, and supplied a want which had long been felt in this busy mining and manufacturing district. It was originally built by the Earl of Dudley, to provide a home for the poor limestone miners who had been either blinded or maimed in the extensive quarries on his estate. "The almshouses," as they were called, were not, however, appreciated by those for whom they were intended, the men preferring their liberty and their own homes, however humble, to the handsome building which Lord Dudley's generosity had provided. The building stood vacant for some time, and it had not been decided what should be done with it, when Mr. Guest, a wealthy nailmaster of Dudley, died, having previously in his will bequeathed £20,000 to endow a hospital in his native town. Lord Dudley, seizing the opportunity, ordered his architect, Mr. William Bourne, to set to work to convert the building into a hospital, and very admirably he, during his lifetime, performed the task; the works have, however, owing to Mr. Bourne's death, been completed by his successors, Messrs. Davis and Middleton, and the result is highly gratifying. Alterations are seldom satisfactory, but in this instance the architects have displayed great taste and judgment, and no expense has been spared by his lordship to make the hospital complete in all its details. The building forms three sides of a quadrangle, and overlooks a valley, on the other side of which are the lofty wooded hills on the summit of which are placed the picturesque ruins of Dudley Castle. Upon entering the principal doorway in the left wing are two wards, with a nurses' room between them—the larger is 95 ft. by 23 ft. 6 in., and the smaller 17 ft. by 19 ft. In the large ward, which is now used for males, are two large central fireplaces with shafts of a quatrefoil shape, which give great warmth. In these wards, which are 20 ft. 8 in. high, are all the modern appliances of a hospital of the best kind, as electrical bells, handsome oak tables, chairs and lockers, Maw's urinary test-stands, and adjoining them are lavatories fitted with Jenning's swing basins, a bath-room, and two waterclosets. The lighting is effected by six large and four smaller windows on either side, and by three large windows at the end of the ward. At the back of these wards are the instrument-room, surgeons' consulting-room, and operating theatre; the instruments were supplied by Salt, of Birmingham, at a cost to Lord Dudley of £160, and are of the most recent pattern.

The theatre is well lighted from the roof, and amply ventilated; it is supplied with hot and cold water, and contains a useful operating table, also made by Salt.

To the right of the principal entrance are two other wards, measuring respectively 64 ft. by 24 ft., and 23 ft. by 16 ft., with a nurse's room intervening, on either side of which are windows, so that the nurse can see what is going on in each of the wards. The larger is now used as a female ward. It has one central fireplace, and is fitted up with the same conveniences as the large male ward before described. When the building is completed it will accommodate 100 patients, and then the females will all be transferred to the right wing, and all the four wards in the left wing will be occupied by males.

In the middle block of the quadrangle are situate the matron's rooms, kitchens, offices, &c., and in a massive square stone tower over the central gateway is the committee-room, which is handsomely fitted up with oak furniture.

Connecting the two wings is an underground corridor, so that the house-surgeon, whose quarters are at the extremity of the right wing, can pass to the opposite side of the building without going outside.

Besides the house-surgeon's residence, there are also on the ground floor of the right wing the dispensary and drug store; the chapel and two wards, measuring respectively 63 ft. by 23 ft. and 31 ft. by 23 ft., occupy the first floor. These wards are not, however, at present fitted up.

In the rear of the central block are two separate buildings. One contains the post-mortem room and mortuary, and the other the laundry and washhouse; the former would have been better placed at a greater distance from the hospital.

There are at present thirty-three patients in the hospital, who are mostly suffering from surgical diseases or accidents; but medical cases are also admitted if not of an infectious character. Several amputations, lithotomies, and other operations, have been performed, and on the day of our visit resection of the knee was done by Mr. Houghton for chronic articular caries in a boy aged seven. The actual cautery was also used in another case of chronic disease of the knee-joint in a boy aged fourteen, the knee having previously been straightened and the adhesions broken down under chloroform. Lithotomy had been performed on a boy aged six and in another aged seven, and both cases had done well. The house-surgeon is thoroughly up to his work, and the whole institution is so managed as to be highly creditable to the medical staff. It is a standing monument to the philanthropy of the late Mr. Guest and the generous beneficence of the Earl of Dudley, and will be of vast service to the sick and suffering of the district.

One special feature which remains to be noticed is that there is no out-patient department, but that is not to be regretted, as there is already a very large and efficient dispensary in the town of Dudley.

THE INCOMES OF THE IRISH BODIES.

As an appendix to the Irish Conjoint Scheme, the following statement of the gross receipts of the Irish bodies in the past five years is given:—

Queen's University	£2125	0	0
University of Dublin	4512	0	0
Apothecaries' Hall	146	0	8
King and Queen's College of Physicians	7168	0	0
Royal College of Surgeons	15168	6	0
Total	£29119	6	8

SMALL-POX continues to prevail very extensively in Portsmouth and Leicester. In Portsmouth 148 fatal cases have been returned in the past ten weeks of the current quarter, as compared with 43 in the preceding three months; and in Leicester the corresponding numbers for the same periods were 141 against 50.

Correspondence.

"Audi alteram partem."

THE CONJOINT BOARD SCHEME FOR SCOTLAND.

To the Editor of THE LANCET.

SIR,—How the proposed Conjoint Board scheme for Scotland came to be sent to you for publication I know not. I was under the impression that it would make its first appearance at the Medical Council, where it could be accompanied by an explanation from those who disapprove of its chief feature—the proposal to make the examination clinical only. The fact that it is now published, together with your criticism on it, with which I entirely concur, renders it necessary that the explanation should be made now, that it is far from expressing the unanimous opinion of the bodies in whose name it appears. Foremost among the advocates for a mere clinical examination was the representative of the College of Surgeons of Edinburgh. The Universities of Edinburgh and Glasgow take that view, St. Andrews concurring, so that the minority of three who took the view that the examination should be more comprehensive had before them to choose between the responsibility of preventing any scheme at all being forwarded from Scotland to the Medical Council, or yielding on the clinical point, in doing which we reserved our opinion and our liberty to maintain it at the Council. It is but just to this University to mention that from the beginning it has taken the view that if there is to be a general Conjoint Board at all, the examination should be co-extensive with that of the English scheme, as laid before the Medical Council last year.

The object of the Medical Council in recommending the formation of conjoint boards, as stated in the report of 1871, is "to reduce the number of examinations for licences to practise, and to make each licence a qualification in both medicine and surgery." The proposed scheme for Scotland (that of May 24th) which you publish to-day is open to the following objections:—

1. Instead of diminishing or simplifying examinations in Scotland, it adds a new examination and a new burden. The English scheme, on the contrary, is to be a substitute examination, entirely so for the corporation examinations, as the separate examinations by the uniting corporations in England are then to cease.

2. Being only a clinical examination (except in midwifery) it is not a just or a sufficient test, although, of course, a clinical test should form part of the examination. If it be said that at a clinical examination questions may be introduced in principles, in pathology, in therapeutics, no doubt they may, and in anatomy, physiology, and chemistry too, even in logic and Greek if you like. If that is meant, why not give the examination its right name, instead of hiding its light under a bushel? But let it be distinctly understood that determined objection was taken, after much discussion, to any words which implied more than a clinical examination. No doubt my friend, Dr. Andrew Wood, and others, who took that view, are ready to defend their opinion, but let the responsibility of the proposal rest with its authors.

3. The proposed scheme leaves everything else unsettled except that the candidate must have completed his curriculum of study before being admitted to this clinical examination. It is not only a skeleton, but one with so few bones in it that the anatomist could not imagine the rest. Men might come up for it who had passed nothing else, and after passing it find themselves still without a diploma, and might then well ask why, if a clinical examination was a sufficient test, they could not be registered without having still to pass and pay for a corporation diploma. Again, from a legal point of view, a man might have passed at one of the Scotch corporations and then at the Conjoint Board, and after all have only a partial qualification. This is inevitable so long as the Scotch corporations continue to hold separate examinations in addition to their already existing conjoint examination.

4. It will give occasion for invidious comparison between the Conjoint Board examinations of England and Scotland, and the non-correspondence would interfere with reciprocity between the two kingdoms.

You comment on the proposed "molest" fee of five guineas. Pray recollect that this is to be in addition to the fees at present paid for diplomas, while the fee proposed in the English scheme is simply the present diploma fees amalgamated. But having stood out for this, in so far as University candidates are concerned, let me explain that it is taken from the English scheme, under which those who have passed their examination at the Universities in the fundamental sciences are admitted to the final examination of the Conjoint Board on payment of five guineas. That was a compromise on the one hand between the recognition of the hardship in men who had passed the higher examinations being subjected to the expense, to say nothing of the indignity of having to go through another and inferior examination (for an examination that everybody has to pass must always be a minimum examination), and, on the other hand, the drill-sergeant idea that everybody must be forced through the same portal, even although it is levelling downwards. We object to our students being taxed to a greater extent than this for the benefit of somebody else. We will rather trust them to the tender mercies of a Government Board, whatever the corporations may think of it.

There have not been wanting those who have all along thought that the attempt to form general conjoint boards, in which universities and corporations are huddled together, is a mistake. My friend Professor Gairdner and others have recently come forward against this kind of scheme altogether. The mania for conjoint boards, right or wrong, has been allowed to go so far that many think that it must be appeased by some concession, on the principle of throwing a tub to amuse the whale. But why not pause and reconsider? With the strongest approval of the object of the Medical Council, it has always seemed to me that the proposal to have general conjoint boards is a mistake. It is owing partly to the serious want of a joint examination in England by the corporations, partly to the drill-sergeant notions of examination and education which have had some prominence lately, partly to there being too many licensing bodies (half of them capable of giving only partial qualifications), and partly also to a general confusion of ideas. The objection to the proposed remedy is not merely that the so-called one portal must have three doors, and each of these again a host of doorkeepers. It is complicated, it is expensive, it is unnecessary. I believe that in England and in Ireland what is really wanted is an amalgamation of the examinations of the corporations, so as to give a complete qualification on one examination, and at the same time the cessation of separate examinations by each; and that what is wanted in Scotland is the latter step only, as the corporations of Scotland are already in advance of those of England and Ireland in having formed, and successfully conducted, a joint examination, though the continuance of their separate examinations was an imperfection. Thus all the examinations conferring only partial qualifications would cease, the number of licensing boards would be greatly diminished, and the examinations would become more efficient. There is no occasion for dragging the universities into these conjoint schemes. Their examinations confer complete qualifications, and are all now a long way above the level of the licence examinations. Such a system would, I believe, soon prove satisfactory to all parties, and it would be attained without the overthrow of existing institutions.

I am, Sir, your obedient servant,

Aberdeen University, June 8th, 1872. JOHN STRUTHERS.

PREVENTIVE AND CURATIVE TREATMENT OF VARIOLA.

To the Editor of THE LANCET.

SIR,—Your excellent periodical has given publicity to the ravages of small-pox in England. Experience has taught me that these ravages might be considerably diminished by mercurial treatment; and I beg you will draw the attention of your numerous readers to this excep-

tionally valuable remedial agent, either as preventing variola or curing it.

Preventive Treatment.—During an epidemic of small-pox, doses of two grains of calomel (half for children) protects almost certainly. When the disease exceptionally breaks out, it is of a mild and discrete character, even when the patients had not been vaccinated. Four or five doses of calomel are generally sufficient to shield from the disease.

Since I used this treatment, which I thought I was the first to employ, I consulted many books, and found that the medical men of the eighteenth century had, like myself, observed the prophylactic action of mercury in variola. This certainly takes some credit from myself, but confirms my views.

[Here the writer of this letter quotes from Grassius, Ephem. Naturæ Curios., A. 72, obs. 57; Roussel, Researches on Small-pox, 1781; Dezoteux, Traité de l'Inoculation, an. 8, p. 159; Black's Letter on Inoculation, p. 19, 1771; Desessartz, Mém. de l'Inst., vol. ii., p. 229; Van Voensel, St. Petersburg, &c., in support of the preventive treatment.]

Curative Treatment.—During the incubation of variola, and even during the eruptive period, mercury should be used both internally and externally. By the mouth it may be given as stated above; but the doses should be repeated every twenty-four hours only. The forehead and face should also be rubbed with the strong mercurial ointment for five minutes at a time. From three to five frictions should be used, in proportion to the more or less advanced stage of the incubation. Salivation need not be dreaded; I have observed it only once. It would seem as if the variolous ferment were contrary to the advent of ptyalism.

When frictions have been used during the period of incubation, the eruption sometimes does not appear at all. When the breaking-out does occur, it presents only a few papules, which soon disappear.

When the rubbing is employed within the first two days of the eruption, the development of the pustules seems to be arrested; they become gradually smaller, and finally dwindle away. There is either slight desquamation or none at all. This retrocession of the pustules occurs even when suppuration has reached its greatest activity (viz., from the third to the sixth day of the eruption), but in such a case the retrocession takes place somewhat later, and desquamation is more marked.

In any case the face presents no swelling, the eyelids are unimpeded in their functions, and the nose remains free for the purpose of respiration. This retrograde course in the formation of pus is followed by two consequences of vast importance to the patients.

1. It prevents pitting on the forehead and face, which pitting almost always takes place in confluent small-pox, especially where no vaccination has been performed.

2. It forestalls congestion about the cerebrum, depending on the swelling of the face and parts underneath. This congestion is very dangerous, and has been declared as such by Sydenham. *

I was somewhat nervous at the beginning of my experiments, when favouring the arrest of the pustules of variola; but the absence of any unpleasant symptom soon dispelled the fears I might have experienced respecting the retrocession of the purulent matter.

The medical men of the eighteenth century had here also forestalled me, just as in the prophylactic treatment; whilst I, at one time, thought I had opened a new path. All their efforts were directed to diminish the number of pustules, and even to prevent suppuration altogether.

[The author here quotes Van Swieten, vol. v., paragraph 1388, p. 52; and also paragraph 1393, p. 62; Thomas Fowler, De Methodo Medendi Variolam, præcipue auxilio mercurii, 1778; Ballonii op. omnia Med., Genev., 1762; Lettsom's Med. Mem., sec. 5; Tomlinson's Comment., p. 9.]

I could easily multiply quotations which would show how highly valuable many authors considered the mercurial treatment of variola.

I remain, yours, &c.,

GABRIEL, M.D. of Paris,

Paris, May, 1872. Prizeman of the "Institut."

* Morbi periculum à pustalarum frequentiâ et numero in facie solâ æstimandum. Sydenham, Processus, &c., vol. i., p. 503.

CLERICAL CANVASSING.

To the Editor of THE LANCET.

SIR,—I enclose for your perusal and criticism a circular and form of proxy, copies of which have been forwarded to all the governors of the Manchester Royal Infirmary, capable of voting by proxy, in anticipation of an election to the post of surgeon to that institution, which is supposed to be imminent.

The peculiarity of this proceeding resides in the fact that there is no vacancy at present; and the senior surgeon of that valuable charity, who is now confined to the house by a severe and painful illness, has not as yet sent in his resignation. Of the kindly feeling and good taste exhibited in this specimen of clerical interference I leave you to judge.

I am, Sir, yours obediently,

Manchester, June 8th, 1872. NOT A CANDIDATE.

[COPY.]

THE Revd. Canon Bentley presents his compliments to Mrs. C——, and would feel personally obliged by her signing the enclosed form in favour of Mr. Walter Whitehead, who is a candidate for one of the appointments as surgeon to the Royal Infirmary.

Whilst regretting the irreparable loss which Mr. Whitehead's removal would be to St. Mary's Hospital, Canon Bentley can speak with confidence of the invaluable gain he will be to any other hospital which may be fortunate enough to secure his services.

Canon Bentley, in his capacity as Vice-Chairman of St. Mary's Hospital, has had almost daily opportunities, for a number of years, of observing the unwearied patience and admirable skill displayed by Mr. Whitehead in the performance of his arduous duties; and he can further refer, with equal satisfaction, to the hospital founded and conducted by Mr. Whitehead previous to his settling in Manchester, and also to the establishment which he has more recently instituted for the nursing and protection of the children of destitute mothers.

St. Matthew's Rectory, Manchester, June 5th, 1872.

[This circular is accompanied by a form of proxy.]

NEWSPAPERS, &c., FOR HOSPITALS.

To the Editor of THE LANCET.

SIR,—Passing through Salisbury the other day, I had the pleasure to deposit a number of the *Cornhill Magazine* and of the *Illustrated London News* in a basket suspended at the station, which was labeled somewhat to this effect:—"Basket for the receipt of papers, pamphlets, &c., intended for the —— Hospital." A similar basket placed at the railway stations would no doubt do good.

I am, Sir, yours, &c.,

June, 1872. AMERICUS.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

THE annual meeting of the Birmingham Medical Benevolent Society, under the presidency of Dr. Bennett, of Droitwich, was largely attended. Mr. Taylor, the excellent secretary, reported that the Society had been enabled to make grants to eleven recipients in sums of £30 and £40 per annum to each, making a total of £340 given to various claimants for the benevolent action of the charity during the year. The treasurer's report was equally satisfactory, showing a balance in the bank of £117, and a total capital of £8198 13*s.* 4*d.* Dr. Wade was unanimously appointed president for the ensuing year, and it was decided to hold a Jubilee meeting of the Society in November next.

Small-pox is far from extinct in Birmingham. During the past four weeks the number of new cases reported to the Inspector of Nuisances was respectively 50, 51, 29, and 70, while the number of cases in the infirmary during the same period was 84, 85, 81, and 91. Mr. Barton, the medical superintendent, reports that the severity of the type increases, and that the male acute and convalescent wards are full, so that if any other cases are admitted the

old wards must be reopened. A return of the cost of small-pox patients in the infirmary has been sent to the corporation, which shows that the average cost per head per week for food, fuel, bedding, clothing, &c., is 11s. 6d., and that incurred for medical attendance, drugs, and nurses is 2s.

In Walsall, Dr. Drewry, the newly-appointed medical officer of health, is actively engaged in endeavouring to arrest the progress of the epidemic by extensive revaccination; but the mortality is very high, no less than thirty-one cases of death from small-pox occurring during the past week.

The authorities of Wolverhampton, profiting by the lesson taught by their recent sufferings, seem determined to be more vigorous in the future in putting down nuisances. The magistrates, having heard the statement of the medical officer of health and the borough analyst as to the character of the water supplied to certain houses in the town from a well, granted an order for the discontinuance of the use of the water, and ordered the owner of the property to pay the cost of the services of the medical officer and the analyst.

THE LANCET of June 8th contained certain resolutions passed by a meeting of the medical profession relative to the proposal of the Obstetrical Society, to establish a board for the examination of, and granting "diplomas" to, midwives. The opposition to this movement is not only general on the part of the profession, but also on the part of those members of the Obstetrical Society who reside in Birmingham. A meeting of those gentlemen has since been held, and it was then decided by a very large majority that the proposed Board of Examiners should not be formed.

Birmingham, June 10th, 1872.

THE COLLEGE OF SURGEONS.

AT the meeting of the Council of the College of Surgeons on Thursday last, the report of the Court of Examiners, moved for by Mr. Erichsen, showing the number of candidates passed and rejected for the last three years from each school, was presented. We shall fully consider this important document next week.

The President, Mr. Busk, announced his intention of resigning his seat at the Court of Examiners.

The following were elected members of the Committee of Reference under the proposed scheme for a Conjoint Examination:—Sir William Fergusson, Bart.; Sir James Paget, Bart.; Mr. Busk (President); and Mr. Quain (representative in the General Medical Council).

The two following resolutions were carried:—

Moved by Mr. Erichsen,—"That the Court of Examiners of the College of Surgeons be requested to take steps to ascertain the manner in which 'Practical Surgery' and 'Practical Physiology and Anatomy' have been taught in the different schools in the metropolis and in the provinces, and that they report to the Council the result of such inquiry."

Moved by Mr. Hancock—"That in the opinion of this Council the conduct of Mr. Matthew Bass Smith, as shown by his own evidence in the case of Mr. Edmund Edmonds, of Newent, tried for manslaughter at the Central Criminal Court on the 8th and 9th of May, 1872, is 'prejudicial to the interest' and 'derogatory to the honour of the College,' and 'disgraceful to the profession of Surgery;' and that the solicitor be instructed to obtain a certified copy of the evidence in the case, with the view, should the same be found to have been correctly reported in the newspapers, to the removal of Mr. Matthew Bass Smith from being a Member of the College under Section 17 of the Bye-laws."

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the required examinations for the Fellowship on May 23rd, 24th and 25th, were, at a meeting of the Council held on the 13th instant, duly admitted Fellows of the College:—

Cumberbatch, Alphonso Elkin, M.B. Lond., St. Bartholomew's Hospital; diploma of membership dated Jan. 1870.
Durham, Frederic, M.B. Lond., Northampton; November, 1869.
Elliott, Arthur Bowes, L.R.C.P. Lond., Bartlett-buildings; April, 1867.
Evans, George Harrison, M.B. Edin., Birmingham; April, 1868.
Goodsall, David Henry, L.R.C.P. Lond., Finsbury-square; May, 1868.
Harvey, William, L.S.A., Indian Army; January, 1862.
Joubert, Charles Henry, M.B. Lond., Royal Victoria Hospital, Netley; May, 1868.
Railton, Thomas Carleton, M.B. Lond., Manchester; January, 1869.
Sympson, Thomas, L.R.C.P. Edin., Lincoln; July, 1847.
Wells, John Soelberg, M.D. Edin., Savile-row; December, 1860.

At the same meeting the following Members were admitted Fellows of the College by election:—

Allen, Robert Marshall, Deputy Inspector-General, Brackley, Northamptonshire.
Weekes, Henry, L.S.A., Barnstaple, Devon.

The Preliminary Examination in Arts &c. for the diploma of Fellow or Member of the Royal College of Surgeons of England will be held on Tuesday next, at the University of London, Burlington-gardens, W. It is stated that upwards of 300 names are entered for it.

Professor Humphry, M.D., F.R.S., will commence his course of three lectures on "Human Myology" in the theatre of the College on Monday next at 4 P.M.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 6th inst.:—

Anderson, William Henry, Theddlethorpe.
Dixon, Thomas James, South Africa.
Dobson, Joseph, Leeds.
Edwards, Alfred, Scilly Isles.
Gerrard, William Arthur, Ticknall, Derby.
Greaves, Frank, Bishop's Waltham.

CHOLERA has attacked the British troops at Cawnpore.

IT is stated that Professor Airy, the Astronomer Royal, is to be made a Knight-Commander of the Bath.

THE bazaar held last week at the Knightsbridge Barracks, in aid of the Great Northern Hospital, realised over £1000; of this sum the Princess of Wales contributed 20 guineas.

WE understand that H.R.H. Princess Christian has expressed her intention of honouring with her patronage the concert to be given on the 20th instant at St. Thomas's Hospital by members of St. Mary Magdalene College, Oxford.

THE annual dinner of St. Mary's Hospital, Paddington, was held at Willis's Rooms on Wednesday evening; his Grace the Duke of Grafton in the chair. During the subsequent proceedings subscriptions amounting to £1000 were announced.

THE following members of the medical profession were recently elected Fellows of the Royal Society:—Mr. Le Gros Clark, Surgeon-Major Adams, Dr. John Cleland, Dr. Michael Foster, Dr. Wilson Fox, Dr. Arthur Gamgee, Dr. George Johnson, and Dr. Ormerod.

KING'S COLLEGE HOSPITAL.—An amateur dramatic performance, under distinguished patronage, will be given by the students of King's College on behalf of the above hospital early in July. Further particulars will be shortly announced.

THE Home Secretary has consented to receive a deputation respecting the long hours of work imposed on milliners and dressmakers' assistants. Among the signatures to the memorial are the names of the Earl of Shaftesbury, Lord Lyttleton, Hon. A. Kinnaird, M.P., Sir William Fergusson, Bart., Dr. Brewer, M.P., and others.

TESTIMONIAL.—On Saturday last the members of the late Working Men's Fund Committee for the extension of the Queen's Hospital, Birmingham, presented a testimonial to their late chairman, Mr. Sampson Gamgee, in appreciation of the valuable aid he had rendered them in connexion with the late successful movement of which he was the originator. The testimonial consisted of an illuminated address, bound in red morocco, with gold filigree ornamentation. The first page contained a view of the Town Hall, and the second a view of the block of hospital buildings, the result of the successful enterprise. The address had appended to it the names of 250 members of the association, and spoke in the warmest terms of Mr. Gamgee's efforts. In returning thanks, Mr. Gamgee expressed his gratification at having been of service to his fellow townsmen, and said that, though a surgeon and not a politician, he should always look back with pleasure upon the labour he and the working men of Birmingham had performed together.

THE LYONS CONGRESS.—The following gentlemen have sent in their adhesion to the Congress:—Sir William Fergusson, Bart., Mr. Henry Lee, Dr. Herbert Davies, Mr. Critchett, Mr. T. Bryant, Dr. Brewer, M.P., Deputy Inspector-General Gordon, C.B., M.D., Surgeon Wagner, U.S. Army, Dr. Thorowgood, Dr. Corfield, Dr. de Styrap, Dr. C. R. Drysdale, Dr. A. H. Jacob, Mr. Jon. Hutchinson, Dr. Balthazar Foster, Dr. Henry Harris, and Dr. G. Bolster. Mr. Victor de Méric had previously sent in his adhesion direct to Lyons. Further names, as we have already stated, may be sent to Dr. Prosser James, 18, Dover-street, Piccadilly, London, W.

Medical Appointments.

ANDERSON, J. W., M.B., C.M., has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

BISHOP, S., M.R.C.S.E., has been appointed Assistant Medical Officer to the Fisherton House Lunatic Asylum, Salisbury, vice Barnard W. Wellings, L.R.C.P.Ed., L.F.P. & S. Glas., resigned.

BRUCE, Mr. R. W., has been appointed House-Physician to the Royal Infirmary, Glasgow.

BUCHANAN, Mr. T., has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

CHICKEN, R. C., M.R.C.S.E., has been appointed Registrar to the Evelina Hospital for Sick Children, Southwark-bridge-road, vice A. E. Love, M.R.C.S.E., resigned.

CLOUTING, J. E., jun., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for District No. 1 of the Ongar Union, Essex, vice W. Gilmour, L.R.C.P.Ed., L.F.P. & S. Glas., resigned.

COURTNEY, Dr. D., has been appointed Medical Officer and Public Vaccinator for the Amersham District and the Workhouse of the Amersham Union, Bucks, vice W. Prowse, M.R.C.S.E., resigned.

CROOKSHANK, H. M., L.K.Q.C.P.I., has been appointed an Hon. Medical Officer to the North Dispensary, Liverpool, vice G. C. Walker, M.D., appointed Physician to the Borough Hospital, Bootle.

FERRE, F. A., L.F.P. & S. Glas., has been appointed House-Physician to the Royal Infirmary, Glasgow.

GEMMELL, S., M.B., C.M., has been appointed House-Physician to the Royal Infirmary, Glasgow.

GRAINSHAW, Dr. H., has been appointed Medical Officer of Health for the Town of Walton-on-the-Naze, Essex.

GROVES, E., L.R.C.P.L., M.R.C.S.E., L.M., has been appointed Medical Officer to the Medical Institute Manchester Unity Odd Fellows' Friendly Society, Lincoln.

HAYWARD, Mr. J., Assistant-Surgeon to the Cancer Hospital, has been appointed Surgeon to that institution.

HILLES, J. E., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for District No. 2 of the Thingoe Union, Suffolk, vice G. P. Hubbard, M.R.C.S.E., deceased.

HIRONS, Mr. G. M., has been appointed House-Physician to the Royal Infirmary, Glasgow.

HUDSON, H. R., L.K.Q.C.P.I., L.M., L.R.C.S.I., has been appointed Surgeon to the Newport, Monmouthshire, Odd Fellows' Medical Aid Association, vice W. Watson, M.R.C.S.E., resigned.

M'BRIDE, C., M.B., C.M., has been appointed House-Physician to the Royal Infirmary, Glasgow.

M'CALMAN, H., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for Eddrachillis and Durness, Sutherlandshire, vice R. A. Smith, L.R.C.P.Ed., L.R.C.S.Ed., resigned.

M'EWAN, Mr. J., has been appointed House-Physician to the Royal Infirmary, Glasgow.

M'FADYEN, C., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Sleate, Skye, vice G. A. Mac Rae, M.B., C.M., resigned.

MAGRATH, J., M.R.C.S.E., has been elected Resident Medical Officer to St. Peter's Hospital for Stone and Genito-Urinary Diseases, Berners-street, vice G. P. O'Farrell, M.B., M.R.C.S.E., whose term of office had expired.

MORRISON, A. B., M.B., C.M., has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

MULLEN, Mr. J. (Registrar of Sir Patrick Dun's Hospital, and Secretary to the Coombe Lying-in Hospital), has been appointed Secretary and Registrar to the Rotunda Hospital, Dublin, vice Strickland, deceased.

NAPIER, Mr. A., has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

O'NEILL, W., M.D., M.R.C.P.L., has been appointed Consulting Physician to the Medical Institute Manchester Unity Odd Fellows' Friendly Society, Lincoln.

PRENDERGAST, J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Crossabeg Dispensary District of the Wexford Union.

PROCTER, T., M.R.C.S.E., has been appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, vice Davies, whose appointment has expired.

PURCELL, F. A., M.D., M.R.C.S.E., has been appointed Assistant-Surgeon to the 28th Middlesex Rifle Volunteers.

PUXLY, C., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant-Surgeon to the Liverpool Eye and Ear Infirmary, vice F. White, L.R.C.P.Ed., M.R.C.S.E., elected Honorary Surgeon.

ROBERTS, W. L., M.R.C.S.E., L.M., has been appointed Senior House-Surgeon to the Bradford Infirmary, vice A. C. F. Rabagliati, A.M., M.B., L.R.C.P.Ed., resigned.

SUTHERLAND, H., M.B., M.R.C.P.L., has been appointed Lecturer on Insanity at the Westminster Hospital Medical School.

SOUTTER, Mr. M. C., has been appointed Surgeon to the Islington and North London Provident Dispensary, Hornsey-road.

WHITE, F., L.R.C.P.Ed., M.R.C.S.E., has been appointed Honorary Surgeon to the Liverpool Eye and Ear Infirmary, vice T. Bickerton, F.R.C.S.Ed., deceased.

WOODBURN, Mr. W. H., has been appointed House-Surgeon to the Royal Infirmary, Glasgow.

Births, Marriages, and Deaths.

BIRTHS.

MACLEOD.—On the 10th inst., at Galston, Ayrshire, the wife of J. B. Macleod, M.D., of a daughter.

PALMER.—On the 6th ult., at Loughborough, Leicestershire, the wife of Grimes Palmer, M.R.C.S.E., of a daughter.

PURCELL.—On the 9th inst., at Euston-road, the wife of Ferdinand Albert Purcell, M.D., Assistant-Surgeon 28th Middlesex Rifle Volunteers, of a son.

SHILLITOE.—On the 5th inst., at Birch-mount, Sydenham-hill, the wife of Buxton Shillitoe, F.R.C.S.E., of a son.

WYLLYS.—On the 9th inst., at St. George's-terrace Great Yarmouth, the wife of William E. Wyllys, L.R.C.P.Ed., L.R.C.S.Ed., of a son.

MARRIAGES.

COCKERTON—STRONG.—On the 1st inst., at the Congregational Church, Finchley, Henry Herbert Cockerton, L.R.C.P., L.S.A., L.M., to Frances Maria Wilson, the only surviving daughter of R. Strong, Esq., of Longacre and Finchley.

COLLINS—JEUNE.—On the 6th inst., at St. Mary's, West Horsley, John C. Collins, M.D., Bengal Medical Service, to Augusta C., widow of Lieut. F. A. Jeune, Bengal Army.

DEATHS.

DICKSON.—On the 20th of April, at Port Louis, Mauritius, of malarious fever, John Dickson, M.D., late of Dumfries, Scotland, Medical Superintendent of the Government Lunatic Asylum, Port Louis.

GILL.—On the 31st ult., Wm. Seth Gill, L.R.C.P.Ed., M.R.C.S.E., of White Lion-street, Pentonville, aged 71.

HARRIS.—On the 23rd ult., at Lansdowne-place, Brighton (after nearly five years of suffering), Charles Harris, Surgeon, late of Fenchurch-street and Guilford-street, Russell-square, London, aged 83. Friends will please accept this intimation.

JACOBS.—On the 30th ult., Wm. H. Jacobs, M.R.C.S.E., of Bristol, aged 67.

RICCARD.—On the 16th of April, E. Jackson Riccard, M.B., of Port Louis, Mauritius, formerly of South Molton, aged 52.

RUMBALL.—On the 4th inst., J. Q. Rumball, M.R.C.S.E., of Harpenden, aged 71.

Medical Diary of the Week.

Monday, June 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Humphry, "On Human Myology."

Tuesday, June 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, June 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Humphry, "On Human Myology."

Thursday, June 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, June 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 3 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Humphry, "On Human Myology."
QUEKETT MICROSCOPICAL CLUB.—8 P.M.

Saturday, June 22.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

COMPETITION AND THE INDIAN SERVICES.

WE are somewhat surprised that a paper read by Dr. George Birdwood at the rooms of the Society of Arts last month has not attracted more attention. Mr. Eastwick, M.P., was president on the occasion, and took part in the discussion on the paper. Dr. Birdwood was an advocate of competition, but not apparently of competition as it is at present carried on. He had a very great experience of paper examinations, and it was not favourable to them. Dr. Birdwood declared, with Mr. Matthew Arnold, that it was the crammed men, and not the forced men, who passed the Indian civil service examinations; and he stated that a distinguished examiner had pointed out one of the successful candidates for the year in which he examined, and who stood at the top of the list, as the very type of an uneducated man. "The Indian medical services had long been out of demand before they copied the system of competitive examination from the effete Chinese, and it had happened, since they were thrown open to competition, that the candidates had barely out-numbered the appointments offered to the public." He did not deny that many men of the highest accomplishments and scientific and professional ability had entered the Indian medical service under the new system; but he contended that a large number had been admitted who would have had no chance of passing when Dr. Scott examined the nominees of the old Directors. The civil service of India was becoming as little sought after as the medical. After dwelling upon crammers and the evils of cramming, Dr. Birdwood said that the abuses of competition might be readily corrected by throwing open the public services to the public schools, the Government inspected schools, and the universities throughout the country. In the discussion that subsequently ensued, there were, of course, several dissentients from the views advanced by Dr. Birdwood; but many of the speakers substantially agreed with him.

THE letter of *Dr. Yellowlees* shall be inserted in our next impression.

TREATMENT OF SMALL-POX BY VACCINATION.

To the Editor of THE LANCET.

SIR,—Although I have not tested Mr. Furley's plan of treatment, I have observed some facts during the last few months which throw considerable doubt on his conclusions. I narrate the following out of several similar cases, and it also illustrates a plan of treatment which I have found to be of great service.

I was called to see a child (unvaccinated) who was at about the eighth day of confluent small-pox, and found a younger sister, aged five, to be unvaccinated. I immediately vaccinated her in two places, and on the eighth day there were two very large and perfect vesicles. A day later all the initiatory symptoms of small-pox were present, and forty-eight hours afterwards the eruption appeared. On the evening of the fourth day of the disease I was sent for, and found the child perfectly insensible, with squinting and contracted pupils. The muscles of the jaw, back, arms, and legs were rigid; the pulse was very rapid, and the temperature 105·4°. I immediately enveloped her in a sheet wrung out of tepid water, and rolled three or four blankets tightly over it. She gradually began to perspire profusely, and in two hours the squinting and muscular rigidity had disappeared. She could answer questions, and was able to take a good drink of milk. As the temperature was only one degree lower, I reapplied the packing, and ordered her to be removed from it in two hours. She slept well during the night, and in the morning the temperature was only 100·4°. In the evening it had risen to 103°; so the packing was repeated, and was followed by a reduction to 99·6°. Throughout its subsequent course the case continued severe, but was followed by a satisfactory recovery, although the eruption was copious.

Having seen cases of this kind, and knowing of cases which have proved fatal, occurring under similar circumstances as regards vaccination, I am forced, however reluctantly, to the belief that Mr. Furley's conclusions are based on insufficient grounds. Your obedient servant,

Doncaster, June, 1872. A. CHRISTY WILSON, M.D.

To the Editor of THE LANCET.

SIR,—Some weeks ago I read in the columns of the *Scotsman* letters from Mr. Furley, of Edinburgh, on the subject of small-pox, in which he advocated vaccination not only as a preventive, but as a cure. Since then I have read your own article on the same subject; and as I have lately had an opportunity of testing the accuracy of Mr. Furley's statements, I should like to lay the result of my observations before the readers of THE LANCET. No logical and reflecting man in these days doubts that vaccination is a preventive, or that revaccination is, to say the least of it, highly expedient.

At M., in this parish, I have had five cases of small-pox in five different families, each family consisting of from four to thirteen individuals. I saw each case on the first day of the eruption, and, as I thought it could do no harm, I vaccinated the patient and all the other members of the household. In no instance did the vaccine take in the case of those affected with variola; but I experienced no difficulty in successfully vaccinating all the others, all of whom, with one exception, required only one application of the lymph. Those persons have as yet shown no signs of variola, though continuing to reside in the same house during and after the existence of small-pox in it.

In the town of Kinghorn I am at present attending a family of five, four of whom are lying at different stages of the disease, and the fifth is convalescent. The first of these, contrary to law and common sense, came from Edinburgh, where she had been a servant, with the eruption out upon her. When called to see her, I acted as I had done with my other cases—vaccinated the whole family. On the subject of variola the vaccine had no effect; but on all the others the vaccine vesicle made its appearance, and underwent its usual course. They were all vaccinated on the 1st of the month. On the 2nd, one girl took ill, and next day (the 3rd) the variolar eruption made its appearance. Another complained of fever, headache, lumbar pain, &c. On the 3rd and on the 4th, variolar papules were very thickly scattered over the body. On the 4th a third sister took ill, and on the 5th the variolar eruption was to be seen on her. In all the cases the vaccine vesicles were large and well developed, and ran their usual course, as they did in the others not affected by small-pox, and at the same time the three girls presented the variolar eruption all at different stages, and, so far as I can observe, unaffected by the vaccinia. In short, the two diseases were present at the same time, each running its own course, regardless of the other.

It is but fair to state that I did not adopt Mr. Furley's mode of vaccinating—injection. I rubbed the epidermis with the point of an old lancet, as I have done for the last fourteen years, and found so effective, and on the surface blew from a Husband capillary tube some lymph for absorption. I vaccinate about 120 children a year, and not in more than one case in a hundred have I to repeat the operation. It is possible that, where the eruption of small-pox is present, the state of the skin may be such as to prevent the absorption of the lymph laid on the surface, and that *injection* may be attended with better success; but then what deduction am I to draw from the cases above related where the lymph was absorbed? It is true that my cases are rather limited, and that my experience of them may not be verified by others; but as to the curability of small-pox by vaccination I have only to express the hope that it may be so. Yours truly,

Kinghorn, June 8th, 1872. JAS. WELSH, M.D.

GUARANA.

IN answer to some inquiries, we may say that guarana is obtained from the seeds of a tree growing in Brazil, called *Paullinia sordilis*. Attention was recently called to it in this country by Dr. Wilks as a remedy for sick-headache, its use having been recommended to him for that purpose by a gentleman in British Columbia. Its administration appears to be productive in some cases of signal benefit, while in others it is of doubtful utility, or of none at all.

Anti-Quackery.—The recent judgment would seem to show that he could.

CURIOUS OBSTETRIC CASE.

To the Editor of THE LANCET.

SIR,—I have had a case which is rather curious, to me at least, although others may have noted similar ones.

A young healthy woman, being five months pregnant, was frightened by one of her children having his finger cut off by a machine. Suddenly she had a gush of water from the vagina. I saw her the next day, when she said it continued to drain away, and I advised her to keep in bed. This continued for three weeks, although not in such a large quantity as at first, the child being very strong in its movements. Then all at once she had a pain, and it fell on the floor (foot presentation). When I saw it, it was about a six months' child, and it had lived half an hour; but it was minus one foot, and the greater part of the stump had healed over, leaving a ring of granulations round the tibia and fibula, the wounded ends of which projected about a quarter of an inch, so that the healing process had proceeded during gestation. No doubt what had occurred was this: when the mother received the shock, the foot came through the membranes and os uteri; and when the uterus contracted, it was caught, and acted as a partial plug till it was strangulated off, when the fœtus, being released, went up again into the fundus of the uterus, and there the healing process proceeded till the fœtus was large enough to press against the uterine walls, and so excite it to action. A search was made for the foot without success, so, no doubt, it came away with the *débris*. If gestation had been completed without labour coming on, probably all trace of the amputation would have been removed, and it might have been cited as another case of "mother's fright," when it was only a case of Dame Nature's obstetric surgery.

I am, Sir, yours obediently,

Pulborough, Sussex, June 3rd, 1872. S. RUTHERFORD.

Assistant-Surgeon of Volunteers.—We know nothing at present either of the constitution of the Board or of the nature of the examination beyond the information contained in the new Regulations for the Volunteer Force. Our correspondent, however, will find much useful and practical information in Sir Garnett Wolseley's Manual for Soldiers; and the Army Medical and Queen's Regulations will make him *au courant* with his official duties. Prof. Longmore's article on Gunshot Wounds in Holmes's Surgery, and Dr. Moffatt's Manual published under the auspices of the Red Cross Society, will supply much of the professional information required.

Etudiant en Médecine, (Paris.)—The degree of Doctor of Medicine of the Paris Faculty does not entitle the holder to practise in England. The inscriptions mentioned are recognised by the College of Surgeons.

L.K. & Q.C.P.I.—He is not.

MEDICAL OFFICERS OF HEALTH.

To the Editor of THE LANCET.

SIR,—Will you kindly insert the following as the reasons why, in my opinion, union medical officers should be appointed deputy medical officers of health.

1st. Because they are already accustomed to render great service to the State for very small pecuniary profits.

2nd. Because they are called in to cases of epidemic diseases among the poor long before any other public official, and in many cases they alone are individually cognisant of the existence of such cases.

3rd. Because they are personally interested in reducing sickness and mortality in their heavily-worked districts; and,

Lastly. Because every street, alley, and cottage in the kingdom would be under inspection by an educated body of men, already in working order, instead of a fresh staff being appointed.

I think I am quite within the mark when I state that any union medical officer could, if vested with ordinary powers, reduce the sickness and mortality from epidemic and preventable diseases in his district by at least one-half within the first twelve months.

I am, Sir, your obedient servant,

Worcester, June 10th, 1872. WM. WOODWARD, M.D.

SMALL-POX IN COLCHESTER.

A DISCUSSION has taken place in Colchester between Dr. Bree and Dr. Williams as to the mode in which the small-pox spreads, Dr. Williams maintaining that it does so only by contact, Dr. Bree that it does so through the atmosphere. Dr. Bree ably stated the general opinion of the profession, that it spreads, independently of touch, through the atmosphere to a distance, to what distance must be considered unsettled, and objected to the site of the Hospital for Infectious Diseases as likely to lead to the diffusion of the disease. It is to be regretted that there should be any difference in the profession on points of the above kind. We have enough to contend with in the way of public opposition without importing any professional fancies into the controversy. There have been 100 cases in Colchester.

Sailor.—All depends upon the habits and mode of life of the individual; but we believe that the pay is sufficient for the purposes named.

A. Z. should consult our advertising columns.

Mr. C. S. Clouston.—Apply to Messrs. Fraser Brothers, Commercial-road East, London, E.

"HOSPITALISED" THERAPEUTICS.

To the Editor of THE LANCET.

SIR,—With reference to the present mode of practising medicine, and what is desirable therein, I send you the following few observations for insertion in THE LANCET.

According to the teaching of some, it would almost appear that physicians as a body are only a degree above useless. Is such the case? The sufferer cares little for the mere explanation of his malady. He values the physician who will with reasonable patience listen to his complainings, and then furnish him with relief and, if possible, a permanent remedy. It would be well if in the present day more attention were given by some to the practical question of "what is good for what." It is not the chief business of the physician to amuse himself with explorings into the curiosities of nature. There are many things which it is interesting to know, but which it is not necessary to know. With reference to remedies for disease, there really are known and tried remedies, in this sense, that under "such or such" a mode of treatment and care a patient passes through an illness more comfortably, and with less risk to life and to future health, than under some other mode of treatment. Such modes of conducting cases are pretty well agreed upon amongst widely spread practical men; and though there may be a difference in some points of detail, yet in the main they are agreed upon. Heroic measures in respect of mercury, opium, antimony, and bleeding are not generally adopted, and these very powerful remedies are, as a rule, used with great caution and care. Diseases may be cured or cases of illness may be successfully conducted by more modes than one, just as a person may proceed to a town, and arrive safely there by more roads than one, and by more modes of conveyance than one, but he cannot arrive there without adopting one or other of these means; and it is because one cries up this mode and another cries up that mode, that those who are seeking relief from disease get confused, and at last scarcely know which to adopt. This state of things is detrimental and uncomfortable, and it would be of great advantage to all concerned if the mode of working were better agreed upon. It would be much better to fix upon a mode, out of those almost equally efficient, the most generally approved of by the widely spread practical men at the present time, and let that mode be the accepted one for a period. If after that lapse of time has passed, say five or ten years (the nomenclature is to be revised every ten years), there should be found any really good reason to change the accepted mode, then agree again. The sad feature in the present state of the medical world is "the uncertainty of the sound given." It arises in part from a fearful clashing of interests and a most uncomfortable game of "beat my neighbour," and from an injuriously acting "competition," which accomplishes more in the way of producing confusion, loss of confidence, and promotion of quackery than it does in any advantageous direction. A good steady working mediocrity would be more beneficial than this constant useless "fretting" condition associated with advancement! (so called). The whole time is spent not so much in steadily doing as in fretting and fuming about what is to be done. We have too many young teachers, and it might be profitable in every way if Dr. Heberden's remarks in the preface to his "Commentaries on the History and Cure of Diseases" were more widely known and followed. He writes: "Plutarch says that the life of a vestal virgin was divided into three portions, in the first of which she learned the duties of her profession, in the second she practised them, and in the third she taught them to others. This is no bad model for the life of a physician, and as I have now passed through the first two of these times, I am willing to employ the remainder of my days in teaching what I know," &c. This was written when Dr. Heberden was in his seventy-second year. The practical value of his teaching those know who have read his Commentaries. It is not because medical science cannot combat all diseases, or because in the case of everyone death at last subverts the very best directed medical care, that therefore the fallacy is to be indulged which derides both physicians and physic; because every ailment cannot upon all occasions be cured, it does not follow that the greater amount of illness upon the majority of occasions cannot be alleviated and cured. Medical science possesses a great variety of important measures for the cure, alleviation, and cure of many diseases, and such a knowledge of their properties as to enable us to confer an immense amount of benefit upon the afflicted; and thus the practice of medicine has become a practical science of great value, which has the power of conferring more personal benefit upon mankind than perhaps any other single science whatever. It is not reasonable to suppose that the remedies of experience gathered through long ages should be without worth. We must not throw aside what is known because we do not know all we desire to know. We must be content to add by degrees to the accumulated and practically valuable stores left us by the physicians who have preceded us, and hope that our successors will use and not discard our labours, whether of confirmation (contradiction seems to be the great occupation of the present period!) or discovery.

At the present time the fashion seems to be setting in for what may be called a *nihilistic* teaching, and it seems in great measure to be derived from hospital experience. There is too little regard shown for the experience diffused widely through the country amongst practical men, who can follow their cases from their beginning, through their course on to their end, and through life-time afterwards. Hospital experience of cases in the majority of instances is less perfect in reference to course and duration than this. Again, are the remedies tried always carefully dispensed? Are the drugs always of the best quality? Are the patients, when taken ill, always provided at that time in their own homes with rest, food, and clothing? Is it not in a great measure because they *are not* so provided for at their own homes, and then when they come into the hospital *are* fittingly cared for in these respects, that nature at once feels the rebound in many instances, and appears to require nothing more? These means are added in such cases. But when other patients with higher social surroundings outside hospital practice fall ill, and such things do not admit of being added in the same degree, because they are always present, may not the extra influences of drug assistance come in with great benefit in many instances? And do we do rightly to allow ourselves to be quite so much hospitalised as we are at present?

Yours truly,

June, 1872. EDWIN PAYNE, M.D., M.R.C.P. Lond.

*** Some parts of our correspondent's letter are sensible; others seem to us very unpractical. Notwithstanding the "nihilistic" tendency of the fashions of the present day, we believe that there is more good done by medicines and less harm than in any previous time. That "the widely spread practical men" could dictate a line of treatment to last for five or ten years is inconceivable, and, if it were possible, would be most objectionable. What is the past history of therapeutics but one long reign of authority, under which the most doubtful measures—now happily repudiated, as our correspondent says—have been blindly practised. Could anything be more impossible or undesirable than to arrest all experimental variation in treatment in favour of one single "mode of working"? Neither do we share our correspondent's fancy for teachers over seventy. It is vain to expect either the strength or the aptness to teach at such ages. The great physician to whom he refers tells us in his preface that the notes on which the Commentaries were based were made in the chambers of the sick, and he also points out that his age is too advanced to make the full use of his materials. Dr. Payne's praise of the experience diffused among practical men is just; and if this kind of experience is not respected as it should be, it is because it is not carefully utilised and sifted by those who have it. Men allow themselves to get into ruts of habit, and between the influence of these and of the labours of practice they fail to assert themselves or to check their conclusions by such variations of treatment as are necessary to establish any conclusions at all.—ED. L.

A CORRESPONDENT forwards us a cutting from the *Leicester Advertiser*, containing a somewhat fulsome notice of a medical practitioner. Such notices commonly originate in the mistaken zeal of friends, and we are ready to believe that it was so in this case, and that the gentleman alluded to was ignorant of its appearance.

M.R.C.S. will find an outline of Dr. Sibson's lectures in the first volume of THE LANCET for 1870.

THE ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Will you allow me, through the medium of your valuable journal, as briefly as possible to inform "Intending Candidate" what his prospects of promotion are should he be rash enough to enter the army medical service.

I know that most young men, as I did myself, enter the service thinking they will be in the independent position of surgeon of a regiment after a fair service and experience of eight or ten years, as indeed they should be if they are ever to fill that position with credit to themselves and advantage to the service. But how far different is the state of affairs at present, and what is the prospect for the future, "Intending Candidate" will see from the facts stated below.

I have nearly fourteen years' full-pay service as assistant-surgeon, and have over one hundred above me still. On referring to the Army List I find the average annual promotion for the last ten years has been a fraction over twenty, so that I must serve five years more before I can expect promotion to the rank of surgeon. But for "Intending Candidate" the prospect is still more dismal; for if he looks at the last Army List he will see that there are six hundred and twenty-four assistant-surgeons in the service (not to mention twelve candidates at present at Netley—poor fellows, they are like the young bears); and if from this he deducts five per cent. for deaths, resignation, &c., which is about what is usually allowed, and taking the yearly promotion as given above, he will obtain the rank of surgeon in about *twenty-eight years*. Truly the prospect of being a clinical clerk for twenty-eight years is a brilliant one, and ought to attract the best men for the army medical service. But such, I assure you, Sir, is the state of affairs at present; and if intending candidates, after being forewarned, are still *blind* enough to join a service with such prospects, all I can say is, *let them*.

Your obedient servant,

June 7th, 1872. ONE WHO WAS NOT FOREWARNED.

MAURITIUS.

MALARIOUS fever, a large proportion of the cases being of the remittent form in Port Louis, has been very prevalent of late amongst the civil population of the Mauritius. Attacks of fever are said to have been frequent in the town and most of the rural districts, especially in Grand Port and Flacq.

MEDICAL BENEVOLENT COLLEGE.

To the Editor of THE LANCET.

SIR,—As one of the honorary local Secretaries since 1853, and also being a Vice-President of the Royal Medical Benevolent College, it may save the friends of candidates for Pensionerships and Scholarships both trouble and expense by your kindly publishing the following resolution: That I decline making any promise of votes for Pensionerships or Scholarships for admission to the Royal Medical Benevolent College at Epsom for the election in May, 1873, until a list of all the candidates be placed before me, in accordance with the annual custom of the Council of that most excellent charity.

I am, Sir, yours faithfully,

Bournemouth, June 8th, 1872. WM. DALTON.

THE NEW YORK INFANT ASYLUM.

THIS institution has undergone several changes and reforms since its foundation in 1865. It has *now* a lying-in department and a nursery attached to it, and is subsidised by the State in what appears to us a manner at once judicious and generous. The institution receives a certain sum for every woman delivered within its walls, a second sum for every month she remains and nurses her child, and a third sum is given to the woman on leaving the asylum. The unfortunate victim of seduction here finds a shelter, concealment, and protection, and is often saved from a life of prostitution; while the mortality among a class of infants, which had hitherto averaged above 88 per cent., is now reduced to 34 per cent. These gratifying results have induced the large-hearted promoters of the asylum to widen its scope of charity and usefulness, and they are now erecting cottages in the country, where the infants will be placed as soon as possible after birth, the asylum in the city being only used as a receiving home and lying-in hospital.

THE communication of *Dr. Burman* (Wakefield) shall receive attention.

LEPROSY.

To the Editor of THE LANCET.

SIR,—As the subject of leprosy is now engaging the attention of the public to a larger extent than at any former period, so much so that the Government has thought fit to send out Dr. Gavin Milroy to Trinidad and Demerara to investigate the curability of this disease, as propounded by Dr. Beauperthuy, of Cumana, Venezuela, I deem this a fitting occasion that those medical men who have been long resident in the West Indies, and conversant with it, should contribute their quota of observation as to the pathology of this inveterate affection.

I herewith send you a photographic view of the cases at present under my care at the New Providence Asylum, of which I am at present, and have been for the last thirty years, the physician and surgeon.

The advanced case, W. H. J——, has had the disease (tubercular leprosy) about nine years. He cannot trace it to any hereditary taint, although I feel assured if the history of his family could be traced it would be found to be such. He occasionally suffers from attacks of catarrh and fever, and during the last summer had erysipelas of the face, which readily yielded to the ordinary treatment. He is very intelligent, reads and writes, and often entertains his fellow-sufferers by reading to them from books and pamphlets supplied him by the chaplain of the establishment. He is a black man, and a native of these islands.

The second case is that of a lad about sixteen years of age, who has had the disease upwards of four years.

I wish I could reasonably entertain any idea of the curability of this dread disease, but I cannot; and I regret to say that the effort now being made by so good an observer as Dr. Milroy will only, in my opinion, confirm the impression existing in the minds of the profession generally, that, notwithstanding the boasted efficacy of the "oil of the cashew," it will be found to be utterly abortive in the case of a disease of the system derived from hereditary taint. It is supposed that the disease was first introduced into the Bahamas from the French Islands of Guadaloupe and Martinique by certain emigrants settled at one of our out-islands (as they are called).

In THE LANCET of several years ago, about 1841, there is a report drawn up, at the instance of the Lieutenant-Governor of the Province of New Brunswick, by Dr. Robert Bayard, who was called upon to report upon certain cases of this affection which existed among some of the French settlers in that Province, which it seems at that time was a new disease there, a "nova pestis," as it was called. The learned doctor soon diagnosed the disease, as he has shown in your pages, and traced its origin to importation from the said French Islands in the West Indies through the *emigrés* from them into Canada.

Your obedient servant,

Nassau, N.P., Bahamas, April 1st, 1872. H. N. CHIPMAN.

H. J. C.—It is not our practice to recommend anyone by name. Let our correspondent consult any physician of respectability.

Quidam.—In a legal matter our correspondent must be guided by his lawyer: but we do not see the necessity for a circular.

A Candidate will find the particulars he requires in the Students' Number of THE LANCET.

"BLACK DRAUGHTS."

To the Editor of THE LANCET.

SIR,—I was much surprised at reading in your impression of last week, and also in the *Pharmaceutical Journal* of the same date, a notice of a misadventure at Limehouse, where poisoning took place from oxalic acid (it being presumably placed in black draught in place of the usual Epsom salts). I also see that the seller explained that the draughts were the last of a stock bought by him in November last. Being the person who disposed of the business to Dr. Traill, I must, in justice to myself, explain that I left a *very small* stock of black draught, and that only in labeled bottles, behind the counter, made for *present use*, and not made to keep for *any length of time*. As I retailed a pill and black draught for *4d.*, that would not allow of much spirit, and I did not put it; and certainly it would not keep for seven months. Besides, what was done during the intervening period? Will he explain? In a misadventure of this kind, if caused by what had been left by a former proprietor, it would most probably have happened earlier; as with the sale I myself had for black draughts the stock would not have lasted a week, it being a favourite remedy among the sailors after a drinking bout.

Yours, &c.,

June, 1872. A. J. STEDMAN.

Mr. T. Gueen, (New York.)—We can only suggest that our correspondent should consult some medical friend on the subject of his communication to us.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—Will you kindly favour us by stating in your next number that the name "Dr. Wells" inserted in the abstract report of Sir William Gull's and Dr. Sutton's paper was a misprint. It should have been: "Dr. Wilks in 1853 suggested that the cardiac hypertrophy might be dependent on atheromatous changes in the vessels." By so doing you will greatly oblige,

Yours faithfully,

Finsbury-square, June 11th, 1872. H. G. SUTTON.

SUFFOCATION BY CARBURETTED HYDROGEN GAS.

A PERIL, beyond that of explosion, as the result of the use of illuminating gas in bedrooms, has been illustrated in Plymouth within the last few days. The wife of a grocer in that town, it is reported, along with her infant, have been suffocated by an escape of the carburetted hydrogen. The victims were found dead in bed, and the nurse barely escaped with life. There is a little difficulty in understanding how in this case the escape could have taken place in quantity sufficient to destroy life without the odour of the gas being perceived by the inmates of the room before sleep overtook them. That the escape should have commenced spontaneously afterwards seems altogether unlikely.

PROTECTIVE POWER OF VACCINATION.

To the Editor of THE LANCET.

SIR,—The following case may, I think, be taken as a strong proof in favour of the preventive power of vaccination against the contagion of small-pox.

In April of last year I was called to a case of small-pox in the daughter, aged fourteen, of parents who travelled the country as hawkers. It was of the confluent type, and when I first saw it it had advanced considerably. I found upon inquiry that the rest of the family, consisting of eight brothers and sisters, of ages varying from eight to twenty-four years, had never been vaccinated. I hereupon vaccinated the whole of them, excepting only one brother, who was away in the country at the time. The patient made a good recovery, and not one of the brothers or sisters at home contracted the disease. In a short time the unvaccinated brother returned, and after the usual period of incubation showed symptoms of small-pox, which rapidly proved fatal. It is certainly only one case, but I think a strong one.

I am, Sir, yours obediently,

J. G. BRADEN,

Lewes, June 10th, 1872. Public Vaccinator for Lewes.

To the Editor of THE LANCET.

SIR,—Referring to a communication you did me the honour to insert in last week's LANCET on the subject of Vaccination as a Preventive of Small-pox, permit me to add, what I ought to have perhaps stated in my former letter, that the two cases of small-pox were importations from a neighbouring village; and that, owing to the precautions taken, the infection did not spread, and Ilfracombe is now entirely free from small-pox.

I am, Sir, yours truly,

Ilfracombe, June 13th, 1872. E. F. H. BURROUGHS.

Dr. Russell, (Glasgow.)—However much we disapprove of the practice, we are powerless to stop it.

A Hospital Subordinate should represent his case, through his surgeon, to the proper authorities.

MEDICAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—My attention has been called to a letter in your last number from Dr. H. A. Husband referring to me. It is a pity, I think, that Dr. Husband did not express his dissatisfaction to me at the time, instead of waiting two months and then detailing his grievances in a public journal. I have simply to say that I am, and have been for several years, the medical attendant of the family in question; that as such I was called to see the child, to whom Dr. Husband had been summoned in an emergency; and that I continued my attendance at the desire of the mother, who undertook to inform Dr. Husband that his services would not be required further.

Yours, &c.,

Canonbury-park, June 11th, 1872. ARCHD. SIMPSON.

COMMUNICATIONS, LETTERS, &c., have been received from — Prof. Maclean, Netley; Dr. Rumsey, Cheltenham; Dr. Drysdale; Prof. Struthers, Aberdeen; Mr. Soutter; Mr. Lake; Dr. Stewart; Mr. Owen; Mr. Stolterfoht; Mr. Black; Mr. Earle; Mr. Pughe, Machynlleth; Dr. Morrison, Glasgow; Dr. Milne, Edinburgh; Mr. Porter; Mr. Williams; Mr. Myers, Nottingham; Mr. Emmerson; Mr. Hornblow; Mr. Garner; Mr. Cheyne, Bedford; Mr. Roberson, Tytherington; Dr. Atkinson, Bampton; Dr. Wilson, Doncaster; Dr. Payne; Mr. Stephens; Mr. Jackson, Orpington; Dr. Watson; Dr. M'Rae, Pennycuick; Mr. Dawson; Mr. Roberts, Bradford; Mr. Dalton, Bournemouth; Dr. Purcell; Messrs. Weiss and Son; Dr. Burman, Wakefield; Dr. Simpson; Mr. Watson, Newport; Mr. Clarke, Manchester; Dr. Garrett, Hastings; Dr. Freund, Hamburgh; Mr. Walford, Atherstone; Mr. Walker, York; Mr. Pelton, Wigan; Mr. Crampton; Mr. Hunt, Coleford; Mr. Scrivener, Burton-on-Trent; Dr. H. G. Sutton; Dr. Redwood, Rhymney; Dr. Rogers; Mr. Maldon; Mr. Harman; Mr. J. MacDonogh; Mr. Wheatley; Dr. Akerman; Mr. Robathan, Risca; Mr. Braden, Lewes; Dr. Woodward, Worcester; Mr. Schofield; Mr. Henry, Chester; Mr. Cater, Colchester; Mr. Clarkson, Perth; Mr. Halford, Uppingham; Mr. Main; Dr. Yellowlees, Bridgend; Dr. Maunsell; Mr. Verkruzen; Mr. G. Palmer, Loughborough; Mr. Gueen, New York; Mr. Cook, St. Ives; Mr. Sidney; Mr. Riley, Bacup; Mr. Sanderson; Mr. Barrow, Manchester; Mr. Gerton, Waltham; Mr. Jordan, Manchester; Mr. Robertson, Dunoon; Mr. Hall, Caterham; Mr. Armfield, Matlock; Dr. Macleod, Galston; Mr. Folkard, Nantwich; Mr. Hare, Lytham; Mr. Donald, Stirling; Mr. Evans, Ramsgate; Mr. Hardy, Oldham; Mr. W. Holman, Huntingdon; Mr. Croskery, Kingston, Jamaica; Mr. Hemming; Mr. Collins; Mr. Macrobin, Hastings; Dr. Prosser James; Mr. Spence; Mr. Davenant; Mr. O'Connell, Waterford; Mr. Ensor, Port Elizabeth; Mr. Kidd, Worksop; Mr. B. Stevens; A Constant Reader; F.R.S.; A Volunteer Surgeon; Fair Play; &c. &c.

Shrewsbury Chronicle, La France Médicale, Kingston (Jamaica) *Weekly Gleaner, Centralblatt für die Medicinischen Wissenschaften, Parochial Critic, New York Evening Mail, Journal of Anatomy and Physiology, Dublin Evening Mail, Rotherham Advertiser, Madras Monthly Journal of Medical Science, New York Herald, Liverpool Daily Post, Manchester Guardian, O Correio Medico, Auckland Evening Star, Gazette Médicale de Paris, Le Bordeaux Médical*, and *Brierly Hill Advertiser* have been received.